

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION

UNITED STATES OF AMERICA, : CASE NO. 1:18-cr-0043
:
Plaintiff, :
vs. : IN-PERSON TRIAL
: PROCEEDINGS
YANJUN XU, also known as XU :
YANJUN, also known as QU HUI, : 19th of October, 2021
also known as ZHANG HUI, : 9:25 A.M.
:
Defendant. : DAY 2

TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE TIMOTHY S. BLACK, JUDGE

APPEARANCES:

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16 Also present: Mae Harmon, Interpreter
17 Yanjun Xu, Defendant

18 Law Clerk: Cristina V. Frankian, Esq.

19 Courtroom Deputy: Rebecca Santoro

20 Stenographer: Julie Hohenstein, RPR, RMR, CRR
21 United States District Court
22 200 West Second Street
23 Dayton, Ohio 45402

24 Proceedings reported by mechanical stenography,
25 transcript produced by computer.

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INDEXWITNESSESDIRECTCROSSREDIRECTRECROSS

JAMES MULVENON,
Ph.D. ,

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INDEX OF EXHIBITSEXHIBITSMARKED/ADMITTED
IDENTIFICATION

Government's Exhibit 10 was marked

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Government's Exhibit 10 admitted

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1 P-R-O-C-E-E-D-I-N-G-S 10:25 A.M.

2 COURTROOM DEPUTY: All rise. This United States
3 District Court for the Southern District of Ohio is now in
4 session. The Honorable Timothy S. Black, District Judge
5 presiding.

6 THE COURT: Please be seated. It's 10:25. We're
7 here in the open courtroom in the criminal case, United
8 States versus Xu.

9 The Government team is present in full, correct,
10 Mr. Mangan?

11 MR. MANGAN: Yes, Your Honor.

12 THE COURT: Mr. Kohnen, the Defense team and the
13 Defendant and the interpreter are here, and you're all here;
14 correct?

15 MR. KOHNEN: Yes, Judge Black.

16 THE COURT: Very well. I'm Judge Timothy S. Black
17 presiding in this matter. I'd like to address the issue of
18 public access in light of the Motion of Scripps Media, et
19 al., to intervene. If Mr. Ford would please approach the
20 podium?

21 Good morning.

22 MR. FORD: Good morning, Your Honor.

23 THE COURT: I have your motion and read it; came in
24 late last night. I want to make a statement to you and to
25 everyone, and then if you need to be heard further, you're

1 welcome to be.

2 The suggestion that this Court is trying to be
3 anything other than transparent or to accommodate the needs
4 of the public among others is just flat out wrong.

5 We are in unprecedented times. We're in the midst
6 of a global pandemic. This is the first Jury trial in --
7 during the pandemic I've presided at. It's the first high
8 profile trial mid-pandemic.

9 We needed to accommodate, first and foremost, the
10 impanelment of the Jury, which included ensuring the safety
11 of everyone involved.

12 Accommodating public access is not lost on us.
13 We've been working for weeks to find a way to ensure that
14 members of the public can have access to the proceedings but
15 that has been challenging due to a number of factors beyond
16 the global pandemic, including technology limits and COVID
17 safety protocols.

18 Among those protocols is social distancing. When
19 everyone is socially distanced, we can only fit 15 Jurors in
20 the courtroom, and they take up the entire gallery.

21 The plan was always to select the Jury and then
22 tweak the protocols as able. We did this this morning by
23 asking if the Jurors were comfortable not being socially
24 distanced; and to our delight, they've all said that they
25 would like to be in the Jury box next to each other. They

1 wanted the Plexiglass down, and I would not have known that
2 until we picked the Jury.

3 That opens up going forward the gallery. I believe
4 many of the issues you raised are mooted by that
5 development, which we would not have had until today at this
6 moment.

7 Constitution Right of access is not absolute.
8 Court's are obligated to take every reasonable measure to
9 accommodate public attendance at criminal trials.

10 Any partial closure must be narrowly tailored, the
11 Court must consider reasonable alternatives, and the trial
12 court must make findings adequate to support the partial
13 closing.

14 In an opinion published on September 30 in Case
15 Number 1:21-CV-597, I spoke to the pandemic. Quote, since
16 the start of August, our region has seen 448,599 new
17 hospitalization admissions of patients with confirmed
18 COVID-19. The case rate this month is roughly double what
19 it was during the first six months of the pandemic.

20 In Hamilton County alone this week, as of 9-30,
21 there were 2,304 new confirmed cases of COVID with 172 new
22 hospital admissions and ten deaths. These deaths are
23 preventible if we follow safety protocols.

24 And that is what has driven the Court from day one.
25 Voir dire's behind us. We won't argue about that. I don't

1 want to argue about how we did this going forward.

2 In all Jury cases typically we put on the docket a
3 sealed transcript of the voir dire proceedings and a
4 redacted copy publicly if there's anything that we have to
5 redact. We intend to do that in this case, and I don't
6 want to talk about it more unless we need to. That's behind
7 us.

8 Going forward, because the Jury is willing to sit
9 in the Jury box next to each other, the gallery is open. I
10 think that accommodates your press representatives. I don't
11 know how many more there are going to be, and I don't know
12 how many members of the public are going to want to sit in
13 the gallery; and they really should be socially distanced.

14 But given where we are, and if you are able to
15 acknowledge that I actually am in favor of public access --
16 I know the law. We worked really, really hard; and for
17 somebody to come in and yell in the courtroom strikes me as
18 unprofessional at best; but I think the issues are largely
19 moot.

20 I cannot provide a video transcript --
21 transmission. We tried that. We'll keep working on it. We
22 looked at it. It's not going to work for us. There's no
23 cameras in the courthouse. We'll have to build something,
24 among other things.

25 We've looked at other courtrooms. They're not

1 available. For the last month and a half the day our trial
2 was scheduled to start, there were four or five other Jury
3 trials to start, and there are a whole host of reasons that
4 this courtroom works well for the parties and the staff, so
5 my proposal is that we open the gallery to the public and
6 the press, continue to present an audio feed -- which the
7 Courts have recognized as a restriction that in the proper
8 context is acceptable -- and I'm ready to proceed, and my
9 Jurors have been here since 9:30 -- or 9:15, and I want to
10 get on with it.

11 So at least as to presence in the courtroom, I
12 think we're moot. Do you wish to be heard briefly?

13 MR. FORD: Your Honor, given the modification of
14 what I understand is the order that you issued yesterday,
15 the suggestion would be audio access only. With the opening
16 of the gallery, that would moot our request to have access
17 to the courtroom and resolve the issue.

18 THE COURT: So may we proceed?

19 MR. FORD: Your Honor, that, that -- that's within
20 your discretion, Your Honor.

21 THE COURT: I'm sorry?

22 MR. FORD: I said that's within your discretion,
23 Your Honor.

24 THE COURT: I know that. Have you been heard, and
25 are you comfortable with the development that opens the

1 access to the courtroom?

2 MR. FORD: Your Honor, on behalf of WCPO, Paula
3 Murphy, and the Cincinnati Enquirer, we've lodged our
4 objection, and it's been satisfactorily resolved. No
5 further business before the Court.

6 THE COURT: Your motion is moot?

7 MR. FORD: I would agree with that, Your Honor.

8 THE COURT: You would what it?

9 MR. FORD: I agree, Your Honor. That due to the
10 modification, that the motion is no longer necessary to be
11 heard.

12 THE COURT: There's to be no recording in the
13 courtroom by anyone, understood?

14 MR. FORD: Yes, Your Honor.

15 THE COURT: Masks at all times, understood?

16 MR. FORD: Yes, Your Honor.

17 THE COURT: And socially distanced as best one can;
18 and if somebody is uncomfortable with not being sufficiently
19 socially distanced, they probably shouldn't come in the
20 courtroom.

21 MR. FORD: Understood, Your Honor.

22 THE COURT: It's been my honor and great privilege
23 to see you.

24 MR. FORD: Thank you, Your Honor.

25 THE COURT: I don't get a chance to say it often.

1 You're free to go or stay.

2 MR. FORD: Thank you, Your Honor.

3 THE COURT: I believe the next step is to get the
4 Jurors and proceed to opening statements. Are we ready to
5 do that or are there matters that need to be brought to my
6 attention before we proceed in that way?

7 MS. GLATFELTER: Your Honor, we're ready. May I
8 ask the Court's permission to approach and just check my
9 computer and make sure we're all ready to go?

10 THE COURT: Yes.

11 MS. GLATFELTER: Thank you.

12 THE COURT: But you're ready otherwise? You can
13 approach now while we watch or --

14 MS. GLATFELTER: Just while the Jury's coming in, I
15 can make sure.

16 THE COURT: All right. Is the Defense ready to
17 proceed?

18 MR. KOHNEN: Yes, Your Honor.

19 THE COURT: Very well. Ms. Santoro, will you call
20 for the Jury, please? Ms. Glatfelter, you can approach.
21 Ms. Glatfelter, have you completed your test? Do you want
22 us to pop something up?

23 MS. GLATFELTER: I think it's ready to go. I see
24 the blank screen, and that's the screen I have up. Thank
25 you, Your Honor.

1 THE COURT: Very well. On the record, as we
2 proceed, when one of the lawyers appears -- approaches to
3 speak, as a first matter, will you state your name to assist
4 the court reporter. You can do it how you choose.

5 Are you comfortable wearing a mask during opening,
6 Ms. Glatfelter, or do you want to take it off?

7 MS. GLATFELTER: I'm comfortable either way. I
8 think Mr. Kohnen and I should be consistent and so --

9 THE COURT: I just assume you both wore it or both
10 remove it. You guys want to vote or do you want me to
11 decide?

12 MS. GLATFELTER: It doesn't matter to me.

13 MR. KOHNEN: My vote is to allow me to give the
14 opening without a mask on, Your Honor.

15 THE COURT: Are you good with that, Ms. Glatfelter?

16 MS. GLATFELTER: I am. Thank you, Your Honor. I
17 just want to make sure the Jurors are comfortable. They've
18 sacrificed by sitting together, and we removed the
19 Plexiglass.

20 THE COURT: Very well. I'm going to tell them,
21 I've given people at the podium permission to lower their
22 mask unless there's an objection from the Jury.

23 COURTROOM DEPUTY: All rise for the Jury.

24 (Jury entered the courtroom.)

25 THE COURT: Jurors can be seated as they join us.

1 All 15 Jurors have joined us. You may all be seated. Good
2 morning to the 15 members of the Jury. I know you were here
3 on time, by 9:15, and I want to apologize for keeping you
4 waiting. If you want to be upset with anybody, be upset
5 with me.

6 As you know, we're ready to go. We're going to
7 start with opening statements. Opening statements are not
8 evidence. They're supposed to be a road map from each side
9 as to what they expect the evidence will be. It's not
10 evidence. It's designed to assist you.

11 The Government goes first; followed by the Defense.
12 We'll see how the day progresses, because after that we're
13 going to start to hear evidence from witnesses, and that's
14 going to happen today.

15 So thank you for being here and making the
16 commitment to be here throughout and to follow the
17 instructions I have already given you.

18 I am inclined to tell the lawyers who make opening
19 statement from the podium that they can take their mask.
20 Does that make any of you uncomfortable? If it does, tell
21 me. You've already made significant concessions by agreeing
22 to sit in the Jury box together.

23 (No Juror raised their hand.)

24 THE COURT: I see no hands. We will proceed to
25 opening statement. On behalf of the Government?

1 MS. GLATFELTER: Thank you, Your Honor. Emily
2 Glatfelter. May I approach?

3 THE COURT: Yes. Thank you.

4 **OPENING STATEMENT BY COUNSEL FOR THE PLAINTIFF:**

5 MS. GLATFELTER: May it please the Court, opposing
6 counsel, ladies and gentlemen of the Jury, good morning.
7 The Defendant got caught. The evidence will show the
8 Defendant, Xu Yanjun, is a foreign intelligence officer.
9 He's a spy for the Chinese Government who conspired to and
10 attempted to steal secret information about jet engines for
11 himself, his agency, and the Chinese Government.

12 From roughly 2013 to 2018, the Defendant worked
13 toward that goal, and you're here today because he got
14 caught doing it.

15 In March 2018, the Defendant flew around
16 8,000 miles from China to Europe to clandestinely meet with
17 an engineer who worked for one of the top jet engine
18 manufacturers in the world.

19 Only Mr. Xu was not meeting the engineer using his
20 identity. He was using an alias, a cover, which you will
21 hear is a common tactic used by intelligence officers around
22 the world.

23 To conceal his true identity and employment with
24 the MSS -- the Chinese intelligence agency where he
25 worked -- the Defendant used the alias Qu Hui; and the cover

1 was that he worked for JAST -- and you'll see that name on
2 the screen -- the Jiangsu Science and Technology
3 Association.

4 THE COURT: Are we putting something up on the
5 screen?

6 MS. GLATFELTER: Yes, Your Honor. One moment, Your
7 Honor. One moment, Your Honor.

8 THE COURT: The technology issue is on us. Give us
9 just a moment. We'll get better as this goes.

10 MS. GLATFELTER: Your Honor, if I may, may I ask
11 the assistance of Ms. Prim, who works for our office, and
12 she also has the PowerPoint on her screen?

13 THE COURT: Very well.

14 MS. GLATFELTER: Thank you, Your Honor. Yes, and,
15 Ms. Prim, if you can go to the second slide? Thank you.

16 And thank you, Your Honor, for bringing that to my
17 attention. It looked like it was up in front of the Jury.

18 THE COURT: It's on us. I apologize.

19 (A document was shown on the screen.)

20 MS. GLATFELTER: Okay. To conceal his true
21 identity and employment with MSS, the Chinese intelligence
22 agency where he worked, Mr. Xu was using the alias Qu Hui --
23 and you'll see that up on your screen -- and he was using
24 the cover Jiangsu Science and Technology Association, JAST.

25 In fact, the Defendant had previously given a

1 business card with this name and cover to the engineer when
2 they met previously.

3 (A document was shown on the screen.)

4 MS. GLATFELTER: And you'll see that up on your
5 screen. The Defendant was eager to meet with the engineer
6 because the engineer was bringing a hard drive full of
7 information that the Defendant had requested.

8 You see before the meeting, the Defendant had given
9 the engineer specific instructions about what to do, and
10 what to bring to their covert meeting.

11 He told the engineer, collect systems specification
12 and design process, and gave the engineer a list of the
13 company information that he wanted.

14 He directed the engineer to create a file
15 directory -- which is a 60-page list -- of all of the data
16 and the files on the engineer's company computer, and he
17 told the engineer to dump his files on an external hard
18 drive; and he instructed him to keep downloading more data
19 from his company computer and bring it with him to the
20 meeting, and you'll see those messages.

21 When the Defendant and another MSS agent arrived at
22 the pre-arranged meeting location in Belgium, they were
23 arrested; and law enforcement recovered from them multiple
24 phones, electronic storage devices, computer equipment,
25 thousands of dollars of U.S. cash wrapped in brown

1 envelopes, personal photographs of the engineer's family,
2 and a passport with the Defendant's true identity, Xu
3 Yanjun, even though he was posing as Qu Hui when he met with
4 the engineer.

5 This is one of the numerous meetings and events
6 you'll hear about during the course of this trial where the
7 Defendant was furthering the goal and the objective of
8 stealing secret information from aviation companies --
9 global leaders in the aviation industry.

10 This case is not only about what the Defendant and
11 the conspirators agreed to, and what they attempted to do;
12 but how they did it, the deception, the lies, the trade
13 craft that they used to accomplish the objective over a
14 period of years because those things helped tell the story
15 about who the Defendant really is, what he was trying to
16 accomplish, and for whom he was doing that.

17 This is my opportunity to give you a road map of
18 how the United States will prove the Defendant committed the
19 crimes with which he is charged and to explain some of the
20 evidence you'll hear over the next few weeks. So I want to
21 take a step back for a moment and give you an overview of
22 what you will hear.

23 Now, first, you'll learn that this Defendant along
24 with others -- called co-conspirators -- worked on behalf of
25 Chinese Government and agreed to steal and attempted to

1 steal trade secrets from the aviation industry, and you'll
2 learn that was from a larger pattern directed from the very
3 top of the Chinese Government.

4 You will hear from Dr. James Mulvenon. He's an
5 opinion leader in Chinese industrial espionage, and he will
6 explain to you that the People's Republic of China -- or the
7 PRC, which is the official name of the Chinese Government --
8 is very different from ours.

9 One of the biggest differences is that the Chinese
10 Government owns, operates, and directs many Chinese
11 companies. Relevant here are companies in the aviation
12 industry. The Chinese Government owns and controls these
13 companies.

14 Now, I don't mean that the Chinese Government
15 regulates those companies like our Federal administration --
16 or Federal Aviation Administration, the FAA, regulates GE
17 Aviation and Boeing.

18 What I mean is that the Chinese Government actually
19 owns the equivalent of GE Aviation and Boeing in China.

20 Two of the companies that you'll hear during the
21 course of this trial -- Ms. Prim, if you can go to slide 5?
22 (A document was shown on the screen.)

23 MS. GLATFELTER: Thank you -- are AVIC, the
24 Aviation Industries of China, which produces military and
25 civilian aircraft; and COMAC, the Commercial Aircraft

1 Corporation of China, which is part of AVIC, and it works
2 for -- works on producing commercial aircrafts to compete
3 with Boeing and Airbus.

4 These companies, AVIC and COMAC, collaborate with
5 NUA.

6 If you can go to next slide, Ms. Prim?

7 (A document was shown on the screen.)

8 MS. GLATFELTER: NUA -- which you'll see the
9 acronym on your screen -- is the Nanjing University of
10 Aeronautics and Astronautics -- I'm sorry -- Aeronautics
11 and Astronautics.

12 The evidence will show that NUA works closely with
13 members of the MSS -- like the Defendant -- and members of
14 AVIC and COMAC.

15 The evidence will show that through these entities,
16 China is attempting to build its own jet engines. You will
17 learn from Rizwan Ramakwadala, who works for U.S. Defense
18 Security Administration, and he'll tell you that China's
19 indeed attempting to build an aircraft engine modelled after
20 the very one by GE Aviation, the most successful commercial
21 gas turbine engine in the world.

22 And he'll tell you that the United States protects
23 certain products and technology from being exported from
24 this country; and that to export certain products and
25 technology, you need a license.

1 Part of his job is to review those licenses and
2 determine whether the export would be a threat to our
3 national security. His job requires him to understand both
4 the technical side of the industry, and the U.S. domestic
5 market and international market.

6 In other words, he must know and he must understand
7 who makes the best jet engines, and what makes those engines
8 the best, and who is trying to build those jet engines
9 around the world.

10 He'll tell you that through reviewing multiple
11 requests from the Chinese companies like AVIC, trying to
12 export U.S. technology, from reading statements by Chinese
13 companies and the Chinese Government, and even through
14 visiting one of these aircraft companies in China, he knows
15 that the leading aviation company in China wants to build an
16 engine using the type of fan blade and the type of materials
17 used by GE Aviation; but they haven't been able to do it.
18 They haven't figured it out despite years and years of
19 trying.

20 The bottom line is that China needs additional
21 information to advance in this industry, and the Chinese
22 Government dedicates significant amounts of resources to
23 meet this goal, to collect scientific and industrial
24 information to try to catch up to what GE Aviation and
25 companies like GE have spent millions of dollars over many

1 years developing.

2 And while the Chinese Government collects a lot of
3 publicly available information, some of the information that
4 they need to advance is hard to obtain and that's because
5 global aviation companies protect the technology -- such as
6 trade secret information -- that makes them successful,
7 that makes -- that gives them a competitive edge in the
8 market.

9 The evidence will show, for example, that GE
10 Aviation uses physical security and cyber security measures
11 to protect their technology.

12 Physical security means things like controlling the
13 access to buildings on their campus, and cyber security
14 means using measures like controlling access to computers
15 and electronic information through passwords and things
16 called dual factor authentication.

17 And because this technology, this aviation
18 technology that China needs is so closely guarded, the
19 evidence will show that the PRC has relied on intelligence
20 agencies to use traditional espionage tactics.

21 That is, spies pretending to be someone they're not
22 to get information and through cyber espionage, like
23 hacking, to steal what they cannot develop themselves.

24 If we can move to the next slide, please.

25 (A document was shown on the screen.)

1 MS. GLATFELTER: The MSS, or the Ministry of State
2 Security, is China's primary external intelligence agency,
3 and you can think of the MSS like the C.I.A., but the PRC
4 has made the mission of the MSS. Their mission is to obtain
5 foreign technology from the most advanced countries in the
6 world, and they do that for the benefit of their own Chinese
7 companies.

8 The MSS functions like this. The evidence will
9 show that AVIC reports up to the chain -- up the chain to
10 PRC Government what types of information they need. Those
11 requirements get passed to the MSS, and the MSS goes out and
12 tries to get it.

13 Essentially they give the MSS shopping lists of
14 information they need, and you will see some of these lists
15 during the course of this trial.

16 Now, how does the MSS function internally? Well,
17 during the trial the evidence will show that the MSS is
18 comprised of various Bureaus. Each one has a different
19 function. One of those Bureaus is the Sixth Bureau, and
20 that's the very same Bureau you will learn that the
21 Defendant worked for.

22 Now, the PRC is divided into 23 provinces, and you
23 can think of provinces like states, and each state has a
24 branch of the MSS.

25 Jiangsu is one of the provinces that I just

1 mentioned, and its branch of the MSS is called the Jiangsu
2 State Security Division or the JSSD.

3 The Sixth Division is where the Defendant worked,
4 and he didn't just work there. He was the Deputy Division
5 Director of the Sixth Bureau.

6 The evidence will show that the Defendant and his
7 conspirators attempted to obtain secret information and
8 secret technology in two ways.

9 First, by recruiting, by developing, and by
10 manipulating human sources to steal the technology for them;
11 and they also used Internet intrusions, sometimes with the
12 human sources that they've recruited.

13 In terms of acquiring technology through human
14 sources, the evidence will show that the Defendant and his
15 MSS agents used the same techniques, trade craft, used by
16 intelligence officers around the world.

17 These tactics include, for example, using multiple
18 aliases and cover. And what I mean by cover is acting like
19 you work somewhere else.

20 The Defendant, Xu Yanjun, has two aliases you'll
21 hear about during the trial -- Qu Hui and Zhang Hui.

22 And if we can show the next slide?

23 (A document was shown on the screen.)

24 MS. GLATFELTER: And on the this slide you'll see
25 the spelling of the different names. Xu Yanjun, which is

1 the Defendant's true identity the evidence will show, and
2 these are the various aliases he used -- Qu Hui and Zhang
3 Hui.

4 Along with these aliases he used a web of E-Mail
5 addresses and social media accounts he used to contact
6 engineers with these aliases; and the Defendant and his
7 co-conspirators would use these aliases and covers and their
8 associates at NUAA -- that's state university I was talking
9 about before -- to lure engineers to China for so-called
10 exchanges. Now, exchanges are kind of like presentations,
11 and they would typically occur at NUAA.

12 The Defendant and his conspirators would target
13 Chinese engineers who worked at global aviation companies
14 and invite them to speak at NUAA, and this would occur
15 during a trip to China.

16 They would offer to pay for the airfare and the
17 expenses of the engineer, and while some members of NUAA may
18 attend the presentations or the exchanges, so would
19 scientists from AVIC and COMAC and MSS agents.

20 Jim Olson is the former Chief of the
21 Counterintelligence of the C.I.A. He served more than
22 30 years in clandestine operations overseas. He is
23 currently a professor and teaches courses on intelligence
24 and counterintelligence, and he will tell you that these
25 tactics are classic techniques used by intelligence

1 officers.

2 Mr. Olson will tell you that from a perspective of
3 an intelligence agency like the MSS, the function of these
4 exchanges is to wine and dine the aviation engineers.

5 While these exchanges appear legitimate on the
6 surface, the purpose of the wining and dining of the
7 aviation engineers is to spot and assess potential new
8 recruits for the MSS and determine if in the future they
9 will provide secret information.

10 One aspect is determining if the engineers would
11 accept money in exchange for the information. After the
12 exchange, if the Defendant and his colleagues assessed that
13 the engineer would do that or is a viable target, they would
14 recruit the engineer and task that engineer to provide
15 secret information or perform certain acts for them in the
16 future.

17 Now, in terms of Internet intrusions, you'll hear
18 how the Defendant coordinated an Internet intrusion with
19 other MSS operatives by using human sources. That is, by
20 co-opted employees or co-opted insiders inside the company
21 that they recruited, and they used those insiders to plant
22 Malware on a company computer.

23 For example, you'll hear about GE Aviation, and how
24 the Defendant tried to obtain trade secrets from GE Aviation
25 by exploiting one of its engineers.

1 GE Aviation derives a competitive advantage from
2 its aircraft engines, specifically the fan blade system made
3 from composite materials.

4 In fact, GE Aviation is the only company in the
5 world to use that combination -- to successfully use a
6 composite material for both a jet engine fan blade and the
7 composite materials that surround the fan blade.

8 This technology gives GE Aviation a competitive
9 edge because they can produce lighter engines, which
10 translates into better fuel economy; and they can produce
11 larger engines, which translates into larger planes to carry
12 more cargo or people.

13 And during trial, you'll hear from a GE Aviation
14 engineer who specializes in composite materials used in the
15 fan blade encasement system.

16 The GE engineer took a trip to China in 2017. One
17 of the Defendant's associates, Chen Feng, invited the GE
18 engineer for an exchange; and that is to present at NUAA
19 during the trip.

20 The engineer agreed to do that, but the engineer
21 didn't know Chen Feng. He'd never met him nor did he have
22 any contact at NUAA or know anyone at the university.

23 In preparation for his presentation, the GE
24 engineer downloaded what's called export controlled
25 material. That is, information that can't be taken out of

1 the country without a license.

2 During the trip he gave a presentation about the
3 composite materials and the fan blade encasements at NUAA,
4 but he did not share the export controlled material.

5 During the trip, the GE engineer met the Defendant
6 at tea, at lunch, at dinner, and the Defendant when he met
7 him used the alias Qu Hui -- that's the middle one on your
8 screen -- and that is when he gave the engineer his business
9 card -- the one I showed you earlier -- with that name, and
10 the engineer saved it, and he provided it to the F.B.I.
11 That's how we have it on the screen.

12 Mr. Qu Hui, or the Defendant posing as Qu Hui, gave
13 the employee approximately \$3,000 in cash after the
14 presentation; and after the trip, the Defendant, still using
15 that same alias, contacted the engineer. He thanked him,
16 and he asked him to keep in touch.

17 A few months later, the F.B.I. confronted the GE
18 engineer who took the trip, and he began to cooperate with
19 the F.B.I.

20 Beginning in late 2017, at the F.B.I.'s direction,
21 the engineer reconnected with the Defendant, whom he still
22 only knew by the alias Qu Hui. And sure enough, the
23 Defendant responded, and he encouraged the GE engineer to
24 travel to China for another exchange that his agency would
25 pay for.

1 When the GE engineer said he couldn't return to
2 China, the Defendant proposed meeting in Europe, and the
3 Defendant began tasking -- that is, asking -- the GE
4 engineer for specific information, and that's the
5 information that I mentioned at the beginning of my opening
6 statement.

7 Between January and April of 2019, Mr. Xu Yanjun,
8 the Defendant, sent the engineer messages over a Chinese
9 social media platform called WeChat. He asked him to
10 collect certain information. He told him to dump his files
11 on an external hard drive. He told him to download more
12 data before they met, and you'll see those messages.

13 The Defendant also sent the GE engineer E-Mails;
14 and in those E-Mails, he sent the engineer a shopping list
15 of what he wanted. He asked him -- that's when he asked him
16 -- or over that platform is how he asked him to create the
17 file directory. He sent him instructions on how to
18 manipulate his computer to create a file directory of every
19 single file on his computer and send it to him.

20 You'll see those E-Mails. And the Defendant also
21 called the GE engineer about the meeting, and you'll see a
22 transcript of that phone call.

23 As I told you a few minutes ago, when the Defendant
24 showed up to meet the GE engineer and receive the contents
25 of the company computer, he was arrested; and after he and

1 another MSS operative named Xu Heng were arrested, one of
2 the phones that law enforcement recovered from them was
3 wiped. That means it was deleted remotely after it was in
4 the custody of law enforcement.

5 Mr. Olson will tell you that from an intelligence
6 perspective, the Defendant was eager to meet with the GE
7 engineer because he thought he had hooked him. He thought
8 he had a new recruit for the MSS.

9 He will tell you that the clandestine
10 communications, the secret meeting place, the Defendant's
11 tasking of the engineer, the large amount of cash in those
12 paper envelopes presumably for the engineer, the wiping of
13 the phone afterward, are all hallmarks of trade craft and
14 symbolic of the recruitment cycle that intelligence officers
15 routinely use with human sources around the world.

16 Now, in addition to the Defendant's attempt to
17 obtain trade secret information from GE Aviation, you'll
18 hear about his interactions with another engineer. This
19 time from Honeywell Aerospace; and from the events
20 surrounding Honeywell, you'll understand how the Defendant
21 and his co-conspirators plan to recruit and exploit this
22 particular engineer in the future.

23 Arthur Gao was an engineer at Honeywell Aerospace.
24 For simplicity, I'll refer to him as the Honeywell engineer.
25 Honeywell is headquartered in the United States like GE

1 Aviation, and it manufactures aircraft engines and avionics.

2 The Honeywell engineer traveled to China for these
3 exchanges. Several members of the MSS were involved in his
4 recruitment, including the Defendant. During this process,
5 the Honeywell engineer also received payments of money from
6 MSS.

7 The Defendant and a co-conspirator persuaded the
8 Honeywell engineer to travel to China again in October of
9 2017 for another exchange. To put this in context, this
10 trip occurred several months after the GE Aviation engineer
11 returned from China.

12 Some of the information the Honeywell engineer
13 provided in his presentation to the Defendant was export
14 controlled. The Honeywell engineer didn't have a license to
15 export it and shouldn't have taken it out of the country.
16 He acknowledged that this was wrong, and he's pled guilty.
17 He's accepted responsibility for his conduct, and he will
18 testify.

19 One of the important pieces of the evidence,
20 though, with respect to Honeywell is what was going on
21 behind the scenes in China when the Honeywell engineer was
22 there but had left the room.

23 You see, during that trip, the Defendant recorded
24 one of his meetings, and that recording was stored on his
25 iPhone, which was backed up to his iCloud, and it was

1 recovered by the F.B.I. You'll see a transcript of that
2 recording.

3 After the Honeywell's engineers' presentation when
4 he left the room, the Defendant and his co-conspirators
5 discussed the recruitment of him, and how best to use him in
6 the future. They debate several options. Acknowledging
7 that because security is tight at Honeywell, using him to
8 provide information directly could be difficult.

9 The scientists at the meeting give the Defendant a
10 list of information -- that shopping list -- that they
11 wanted. After the meeting, the recording captures the
12 Defendant calling another MSS agent.

13 During the call, the Defendant chides the other MSS
14 member for using an alias with the Honeywell engineer that
15 didn't make sense. You'll see a transcript of that call,
16 and you'll see a transcript of the meeting.

17 Now, during trial, you'll hear evidence of other
18 deceptive techniques and tactics used by the Defendant and
19 his conspirators when engineers came for these exchanges.
20 Not only were the Defendant and his co-conspirators using
21 these exchanges to spot, to assess, to recruit potential
22 assets, but they were exploiting them.

23 Unbeknownst to these engineers, they were
24 downloading and copying the devices in their rooms while the
25 engineers were being entertained away from their rooms.

1 The Defendant's electronic calendar documented many
2 of these meetings with engineers that were brought to China
3 for the exchanges, and the Defendant kept specific notes
4 about these exchanges, about who came over, where they were
5 entertained, and when.

6 These notes are more like a diary than a calendar,
7 but these notes include important details about these
8 tactics; and these notes indicate that the MSS hacking or
9 Internet Intrusion Division, the Eighth Division of the MSS,
10 would commit these computer intrusions while engineers were
11 away from their room.

12 The MSS also used a computer intrusion, or a hack,
13 to acquire secret information from an aviation company, and
14 the evidence will show the Defendant coordinated that
15 attack.

16 During the trial, you will hear evidence about a
17 computer intrusion involving the Safran Company. The Safran
18 incident gives you a window into the Defendant's intent, the
19 tactics and techniques behind the scenes. It also shows you
20 how the Defendant used human sources the MSS had recruited
21 to perpetrate a cyber attack on an aviation company.

22 Now, Safran is an international company that
23 manufactures aircraft engines, rocket engines, and aerospace
24 components. Safran is located in Paris, France; and it has
25 a joint venture with GE Aviation.

1 In 2013 and 2014, a few years ago before the GE
2 engineer's trip to China, the Defendant coordinated an
3 Internet intrusion of Safran, which was accomplished by
4 planting Malware, or a computer virus, on a Safran
5 employee's computer. The hacking targeted data and
6 information related to turbo fan engines used in commercial
7 jetliners.

8 To infiltrate Safran, the Defendant used co-opted
9 Safran employees that he had recruited to plant a computer
10 virus on the laptop of a Safran employee who was visiting
11 China.

12 The Defendant and the co-optees referred to the
13 visiting employee as the Frenchman. The evidence will show
14 that the Defendant also tried to conceal his activities
15 related to the hacking afterward.

16 In fact, he ordered that evidence of the attack be
17 destroyed. The Defendant's own communications provided
18 chronology of the hacking into Safran and show his personal
19 involvement.

20 For example, on November -- in November of 2013,
21 the Defendant contacted one of the co-opted employees and
22 asked when the Frenchman would arrive, and if they could
23 meet -- make arrangements to meet him under the name of
24 NUAA?

25 Later, the Defendant contacted the co-opted

1 employee and stated, I'll bring the horse to you tonight,
2 referring to the Malware -- what's also known as a Trojan
3 horse.

4 The Defendant asked, can you take the Frenchman out
5 for dinner tonight? I'll pretend to bump into you at the
6 restaurant and say hello.

7 Between November and December 2013, the Defendant
8 contacted the co-opted employee several times and asked if
9 the horse had been planted?

10 On January 25 of 2014, the employee told the
11 Defendant that the horse has been planted this morning.
12 That very next day, the Defendant directed the employee to
13 destroy the horse, and the Defendant continued to manage the
14 intrusion into the incident asking his agents who worked for
15 Safran about updates with the company. On one occasion, the
16 Defendant asked, do they think China is hacking them?

17 Besides seeing the Defendant's own communications
18 that I just mentioned, you'll hear from the French employee
19 himself whose laptop was compromised, and you'll hear from
20 Adam James, who is a forensic analyst with the F.B.I., and
21 he analyzed the Frenchman's computer.

22 James will tell you that forensic analysis of the
23 laptop shows that on January 25, 2014, that same day that
24 the co-opted employee told the Defendant the horse was
25 planted, that a USB drive was plugged into the laptop, and

1 the laptop became infected with Malware.

2 During trial you'll hear also how after the attack
3 on Safran, the Defendant continued his mission of obtaining
4 trade secret information from global aviation companies, not
5 only did he try to recruit engineers, but he went after IT
6 employees at aviation companies.

7 For example, roughly one year after the Safran
8 incident, Defendant Xu tried to recruit an IT manager from
9 Boeing for an exchange involving Internet security. Boeing
10 is a U.S. based aerospace company that manufactures
11 aircrafts.

12 Significantly during the Defendant's communication
13 with these IT employees -- which was recovered from one of
14 the Defendant's E-Mail accounts -- the Defendant used the
15 same alias that he had used with the GE Aviation engineer,
16 Qu Hui from JAST. That was the same alias that was on a
17 business card he had handed to the GE Aviation engineer in
18 China.

19 Now, this is an overview of some of the evidence
20 you'll hear during the next few weeks, but let me touch
21 briefly on the charges.

22 At the end of the trial before you deliberate,
23 Judge Black will provide you detailed instructions on the
24 law, and you should follow those instructions. For now I
25 want to mention a few legal concepts to keep in mind as you

1 listen to the evidence.

2 You've heard me talk about the Defendant and some
3 of the other MSS operatives, or government officials, that
4 he worked with to steal trade secrets. While there will be
5 some evidence of different people and their roles in the
6 offenses of the trial, the evidence is going to focus on the
7 Defendant because he is the one on trial.

8 However, when two or more people agree, and they
9 work together to commit a crime, it's called a conspiracy;
10 and here a Federal Grand Jury has charged the Defendant with
11 two types of conspiracies. A Conspiracy to Commit Economic
12 Espionage; and, two, a Conspiracy to Commit Trade Secret
13 Theft.

14 The first Conspiracy to Commit Economic Espionage,
15 essentially the United States has to prove beyond a
16 reasonable doubt that the Defendant knowingly agreed to
17 steal or obtain through deception information that he
18 believed was trade secret, and that he did so for the
19 benefit of a foreign instrumentality or a foreign
20 government. In the context of the conspiracy the crime is
21 the agreement.

22 The second type of conspiracy is a Conspiracy to
23 Commit Trade Secret Theft similar to economic espionage.
24 The primary difference is that the intent to benefit a
25 foreign government is not a part of the second conspiracy.

1 A Federal Grand Jury has also charged the Defendant
2 with Attempting to Commit Economic Espionage and Attempting
3 to Steal Trade Secret Information from GE Aviation.

4 Attempts involve the intent to commit a crime, and
5 then some action that counts as a substantial step toward
6 achieving that goal or committing that crime.

7 Essentially the Defendant attempting to steal
8 information he believed was trade secret and taking a step
9 toward that goal.

10 Now, based on what I've just said, the Government's
11 going to present a lot of different evidence in this case,
12 and we will do our best to streamline and make this trial as
13 efficient as possible.

14 During the trial, you're going to hear from three
15 groups of witnesses. You're going to hear from opinion
16 witnesses, like Dr. Mulvenon, Mr. Olson, and Rizwan
17 Ramakwadala, who have developed specialized knowledge in a
18 particular area, and they're going to share that knowledge
19 with you.

20 You're also going to hear from people who
21 interacted with and communicated with the Defendant, and
22 you're going to hear from law enforcement personnel who were
23 involved in the investigation.

24 In addition to the human witnesses, you're going to
25 see the Defendant's own words through digital evidence, such

1 as documents, calendar entries, recordings, messages, and
2 E-Mails. This is some of the most important evidence in the
3 case.

4 Why? Because these are the Defendant's statements.
5 They are his documents. They explain who he is, and they're
6 a window into what he was thinking at the time he sent the
7 message or made the document.

8 These statements come from several sources. They
9 come from various E-Mail accounts that were used by the
10 Defendant sometimes under his name or alias, and they also
11 come from the contents of phones that were used by the
12 Defendant, either because the F.B.I. received the actual
13 phone when the Defendant was arrested in Belgium or because
14 the -- because the F.B.I. received a digital copy of that
15 phone because the Defendant had backed up that phone to an
16 iCloud account; and when law enforcement obtained the iCloud
17 account, there was the backup of that phone in the iCloud
18 account.

19 You'll see at the end of this trial or by the end
20 of this trial how he used these numerous accounts in
21 conjunction with different aliases to communicate with
22 engineers he was trying to recruit.

23 Now, fair warning here, there are a lot of
24 different accounts, and they're tied to the various aliases
25 or connected to each other, and we are going to spend a fair

1 amount of time on these accounts because we want you to be
2 confident in the evidence and to understand how this
3 evidence comes together to prove these were all used by the
4 same person, the Defendant, in furtherance of his mission.

5 By the end of the trial, you'll see how this
6 digital evidence proves the Defendant is an MSS officer,
7 you'll understand what his mission was, and who he was
8 working for.

9 In the end, the evidence will prove beyond a
10 reasonable doubt that the Defendant committed all four of
11 the crimes with which he is charged.

12 He conspired and attempted to commit economic
13 espionage, and he conspired and attempted to commit trade
14 secret theft. That's why at the end of the case, we will
15 come before you and ask you to find him guilty on all four
16 counts.

17 For now, I want to thank you in advance for your
18 time and for your patience as we move through the evidence,
19 and I ask you to do three things during this trial.

20 First, follow the Court's instructions.

21 Second, listen to the evidence closely; and if it
22 helps you, take notes to remember the facts.

23 And, third, as you listen to the evidence, apply
24 your common sense. Thank you.

25 THE COURT: Thank you, Mrs. Glatfelter. The Jurors

1 want to take a break before the Defendant's lawyer presents
2 his opening statement or are you okay to proceed? Raise
3 your hand if you're okay to proceed?

4 (All hands were raised by the Jurors.)

5 THE COURT: Very well. We're ready to proceed. It
6 will take us a moment to switch out the lawyers and stuff.

7 MR. KOHNEN: I'm ready, Your Honor.

8 THE COURT: Do you have an estimate of how long
9 you're going to be?

10 MR. KOHNEN: I'm thinking just about the same
11 amount of time as Ms. Glatfelter, maybe 45 minutes to an
12 hour.

13 THE COURT: And the Jury's okay with that? Nobody
14 wants a break or stop for lunch? All right. Let's proceed.

15 For the press, will you state your name?

16 **OPENING STATEMENT BY COUNSEL FOR THE DEFENDANT:**

17 MR. KOHNEN: May it please the Court, Your Honor,
18 ladies and gentlemen of the Jury, colleagues, opponents, my
19 name is, as you recall, is Ralph Kohnen. I'm an attorney
20 representing Mr. Xu.

21 Ladies and gentlemen, conventional wisdom and even
22 Judge Black has indicated that opening statements are
23 designed to kind of tell you what we believe the evidence
24 will show.

25 It's a little bit ironic when you remember that

1 Defendants aren't required to show anything, but we will go
2 through the evidence as we understand it hopefully in a
3 fairly quick fashion and tell you what we think the evidence
4 will show and what it will not show.

5 Let's start with what it will not show. It will
6 not show that trade secrets -- as Judge Black will define
7 them for you -- ever surfaced in this case at all. No trade
8 secret information was revealed.

9 The evidence will not show that Mr. Xu, our client,
10 intended to steal trade secrets and that he never
11 specifically sought them.

12 The evidence will not show that Mr. Xu conspired
13 with anyone to steal trade secrets or to steal them for
14 anyone as the Government has alleged.

15 One of these co-conspirators allegedly is the
16 People's Republic of China. I'm not sure how the evidence
17 is going to show an individual conspiring with the
18 Government of over 1.4 million people.

19 Let's talk about what the evidence will show.
20 While, as I mentioned, we have no burden to prove anything,
21 the evidence is going to show a setup.

22 Now, I know what you're thinking. I've heard that
23 before. I've seen that on TV, but hear me out. Hear me
24 out. Let's talk about this alleged attempted theft of trade
25 secret information from GE Aviation because it's the main

1 part of the Government's case; and it's in my mind, where
2 things should begin, and, frankly, where they should end.
3 I'll get to some of the details in a moment, but here's a
4 high level summary to begin with.

5 GE Aviation noticed that one of their engineers, a
6 fellow I'll call Zheng, had downloaded from their servers a
7 large amount of confidential information.

8 GE Aviation called the F.B.I. The Engineer Zheng
9 at that point was the obvious target of what became an
10 F.B.I./GE Aviation joint investigation.

11 Between GE personnel and the F.B.I., they
12 interviewed Zheng for more than five hours on November 1st
13 of 2017. The F.B.I. took his phone, they towed his car
14 away, and they told Zheng that his wife and his child could
15 not return home for dinner that evening because agents were
16 searching his house.

17 They let Zheng call his wife to tell her to stay
18 away from the house, but he wasn't allowed to tell her why,
19 and the agents insisted that he speak to her in English and
20 that he use one of the agent's phones and use it on the
21 speaker phone so that the agents could listen in.

22 The agents told Zheng eventually that he could
23 leave, but they advised against it. Where would he go? His
24 home is being searched. How would he get there? His car
25 has been towed away. How would he call someone to pick him

1 up? They seized his phone.

2 The agents broke Zheng. They broke him. While he
3 never, even to this day, has admitted disclosing GE's trade
4 secrets, the agents convinced him he was in big trouble
5 nonetheless.

6 So now the joint investigation is underway.
7 Investigators learned that Zheng traveled to China five
8 months before on the date of June 1, 2017, and they learned
9 that he lectured at a university in the city of Nanjing.

10 They found the materials that he brought with him
11 to China on his computer, which they had seized from him. I
12 think actually General Electric Aviation people seized it
13 from him, but we'll see.

14 Among the materials on his computer was a 19-page
15 PowerPoint presentation which was analyzed very carefully,
16 but after a lot of hand wringing and three meetings at GE
17 Aviation on successive days between the F.B.I., GE Aviation
18 security, GE Aviation engineers, GE Aviation management,
19 Department of Justice lawyers, including Mr. Mangan and Ms.
20 Glatfelter, Agent Hull and other F.B.I. personnel, it turns
21 out that Zheng was telling the truth. Zheng never had
22 disclosed GE trade secrets. He didn't do so in the
23 presentation he shared at the Chinese university to graduate
24 students. These slides were on the PowerPoint. Excuse me a
25 moment. Sorry about that.

1 So without a case or anything to go after Mr. Zheng
2 on, so begins the hunt for another target. GE and the
3 F.B.I. learned that three months before the trip, as Ms.
4 Glatfelter alluded to, Zheng had been contacted by someone
5 in China named Chen Feng. He was from the Nanjing
6 University of Aeronautics and Astronautics, NUAU, as you
7 heard, and they learned that Zheng had actually -- the GE
8 engineer had actually gone to China at this fellow Feng's
9 request and gave his presentation to university students on
10 a subject that involved technology and the technology used
11 to manufacture aircraft engine parts.

12 However, as I said, the F.B.I. and GE learned that
13 Zheng had not shared any GE trade secrets. He hadn't shared
14 them with the Chinese, and the computer that he used for his
15 presentation had not been compromised. So they turned their
16 attention to Chen Feng and our client Mr. Xu.

17 The F.B.I. made Mr. Xu and Mr. Feng their new
18 targets. They were the targets of the investigation because
19 at that point they believed, well, they must have asked for
20 trade secrets, but the evidence will show they had not.

21 So here's going backwards a moment. The chronology
22 in a little more detail. I want you to see if you can -- if
23 you sense a theme here.

24 Chen Feng reached out to Xu on March 2 of 2017, via
25 E-Mail. One of the things he said in that E-Mail is, and I

1 quote, there is no restriction on the format of the
2 exchange, and the details can be agreed upon later.

3 Mr. Zheng from GE is interested in what the format
4 of the exchange would be. Format being his word as
5 translated.

6 Chen Feng replies: It's diversified. It can be
7 either lectures or internal discussions. Basically what
8 Chen Feng says is, it's up to you. Up to you, the person
9 who's responsible to protect his employer's trade secrets.

10 Chen Feng E-Mails Zheng again inquiring about:
11 Does he have any preliminary thinking on his exchange?

12 Zheng from GE replies: Could you please provide
13 some general information about previous exchanges.

14 Chen Feng replies in part: The university would
15 like to have you propose two or three specialized research
16 topics and send the information to me. We will then give
17 the feed -- give you feedback based on the scientific
18 research needs at the university.

19 Chen Feng follows up on an E-Mail to Zheng the next
20 day which includes this: There are no restrictions on the
21 format of the talk.

22 Chen Feng then follows up again very soon after and
23 says: In the meantime -- among other things -- in the
24 meantime, you can propose -- you can also propose contents
25 that you would like to do the exchange and in which you have

1 expertise.

2 Zheng explains, GE Zheng: I am required to sign a
3 technical agreement with the company that I work for here.
4 I can only participate in a seminar or give a general
5 presentation. Please inform me your specific requirements.

6 Chen Feng from NUAA replies: We fully respect your
7 opinions and will only discuss general topics in the area of
8 engine materials that will not violate your company's
9 technical agreement requirements.

10 Zheng replies with the title of his presentation,
11 which he gave on June 1st of 2017. The evidence will also
12 show that the information covered in that presentation was
13 the subject of his Ph.D. doctoral thesis at the University
14 of Akron here in Ohio.

15 So at this point in the chronology, if you will, we
16 have Chen Feng from NUAA discussing with Zheng his
17 contemplated exchange. We have Zheng making it clear there
18 are work things he cannot share, and Chen Feng saying
19 essentially no problem.

20 Zheng gives the exchange on June 1st. Our client,
21 Mr. Xu, does not attend the presentation, but he is
22 introduced to Zheng later, or at some point during his trip
23 there as Department Head Xu while Zheng's is in Nanjing.

24 Things get a little fuzzy from here on out, though,
25 in the communication continuum because -- and not because

1 the messages are hard -- the translated messages are hard to
2 follow, but it's because we don't know who all the people
3 acting as Xu are.

4 We know from information we received quite recently
5 from the Government that Xu's E-Mail address was used by
6 more than one person -- potentially many more than one
7 person -- and we know that this same E-Mail address was
8 sending and receiving messages from locations that were many
9 miles away from each other at essentially the same time.
10 This obviously is evidence of people sharing an E-Mail
11 address.

12 Nonetheless, the evidence continues. Mr. Zheng
13 sends message to Department Head Xu. He suggests that he
14 would like to do another -- this is on June 13, 12 days
15 after his presentation in Nanjing. He suggests that he
16 would like to do another presentation.

17 We have no idea who read this or if anyone did
18 because there was no response. In fact, there was a delay
19 of approximately five months between communication between
20 Zheng and the alleged Mr. Xu.

21 During that time on November 1st, is when the
22 F.B.I. confronted GE Zheng, and they interrogated him. The
23 scenario I portrayed for you a few minutes ago.

24 The F.B.I. meets with Zheng. Ultimately 20 days
25 later on November 21, 2017, Zheng agrees to cooperate, and

1 he agrees to let F.B.I. agents dictate and control -- those
2 are the words of one of the agents -- dictate and control
3 the WeChat E-Mail messages that Zheng sends going forward.

4 So on that same day, the 21st day of November,
5 Agents Hull, Special Agent Hull and his colleague, Special
6 Agent Reigle, through Zheng in his WeChat function, message
7 Chen Feng and thank him for NUAA's hospitality.

8 Chen Feng responds: You're welcome. You're
9 welcome to come back and exchange and instruct again.

10 About three weeks later, Agents Hull and Reigle
11 through Mr. Zheng's WeChat message Chen Feng again. Explain
12 that he would like to travel to China. He says that the
13 visitation to NUAA was very impressive, and I wonder if
14 similar arrangements is feasible. That's the translation.
15 When I say he says at this point, obviously I mean they
16 say.

17 Again, Chen Feng responds, and he says that going
18 forward, Mr. Xu -- in the series Mr. Xu will handle
19 relationships with you.

20 Meanwhile, again, the agents through Zheng 's
21 WeChat function send a text or message to Chen Feng and ask:
22 Is there any particular material I need to prepare?

23 The response: You don't need to repair -- prepare
24 any lecture materials. Chen Feng apparently has lost a
25 little bit of interest.

1 Now, what happens is the agents begin to offer to
2 share confidential GE technological information with this
3 person or through this person who they believe to be Mr. Xu.

4 Example, on January 8 of 2018, Agents Hull and
5 Reigle WeChat message Xu, and they say as if they were
6 Zheng: Is there any material you want me to prepare?

7 Again, on the 11th of -- three days later on
8 January 11, they say: Regarding the material, please let me
9 know as soon as possible so I can do some research and try
10 to -- try my best to meet the need for the exchange.

11 Whoever was occupying the keyboard and pretending
12 to be Mr. Xu at that point replies: As for now, there's
13 nothing you need to prepare on my end. Offer and an example
14 of acceptance.

15 Shortly after that on the 17th, again, they throw
16 out the bait. I am still very willing to contribute --
17 this is the agents pretending to be Zheng -- I am still
18 very willing to contribute if any related departments have
19 any needs in the near future. Right now in my situation is
20 convenient for me to gather relevant information.

21 No response by January 23. So the agents, again,
22 send a message to, to, to Xu. Says -- and this is a lie --
23 he thinks he may be laid off from GE Aviation, and he is,
24 quote, trying his best to collect as much information as
25 possible.

1 Whoever Xu is on that day, the 23rd of January,
2 says: Okay. Try your best to collect, and we can talk by
3 then.

4 This goes on and on and on. At one point, not long
5 after this, on or about the end of January of 2018, there's
6 a Zheng through the agents -- the agents through Zheng talks
7 about what kind of information could be collected in
8 response to a question.

9 He says: Domestically there is more focus with our
10 folks on what's known as the system code.

11 So the agents respond: Regarding the system code,
12 can you be more specific?

13 Xu replies: Systems specifications, design
14 process, et cetera.

15 Two days later the agents through Zheng -- I think
16 on this occasion his E-Mail account -- actually send a
17 confidential GE Aviation document; and as if they were Zheng
18 they ask: Is something like this the system code you
19 mentioned?

20 What it was that they sent was something entitled
21 the GE 9X Fan Containment Case Design Consensus Review.
22 They got no response from Xu.

23 There was an offer of access to Mr. Zheng's
24 computer directory. We don't know if it was really his
25 computer directory. We don't know if things that were put

1 in the computer directory -- it was a copy of the directory,
2 you understand, not the contents, but just a copy of the
3 directory. We don't know if things were added, if things
4 were deleted, et cetera, because by that time the F.B.I. --
5 presumably through GE -- had Mr. Zheng's computer for
6 months -- four months, three months, four months.

7 So here we are months leading up to Mr. Xu's arrest
8 in Belgium, which took place on April 2019, and the question
9 arises has this information been sought or has this
10 information been authored?

11 Mr. Xu never specifically in his E-Mails asked
12 Zheng for any trade secret information -- certainly not any
13 trade secret information that belongs to GE Aviation.
14 Rather as time went on, the F.B.I. agents through Mr. Zheng,
15 as I said, got to the point where they were actually
16 offering to disclose trade secret information.

17 Now, the scenario I just laid out for you -- and
18 I'm sorry it took so long -- is an example of an offer of
19 trade secret information; but you're going to have to figure
20 out how that equates to an attempt to steal trade secret
21 information when it's already been offered and perhaps
22 provided as with the fan blade containment system document.

23 Undeterred by the lackluster responses and the lack
24 of actual requests, the F.B.I., as you'll hear in great
25 detail, lured Mr. Xu to Belgium. They arrested him.

1 They had him extradited -- had him ordered
2 extradited to the United States, and they flew him on a
3 private F.B.I. jet non-stop from Brussels to Lunken Airport,
4 just five or six miles that way (Indicating.) That was the
5 first time Mr. Xu ever set foot on U.S. soil.

6 Ms. Glatfelter alleged to -- or mentioned other
7 alleged recruiting efforts by Mr. Xu. Like Zheng, there
8 were others that GE was in contact with, and we freely admit
9 that he recruited people to come in and share technology.
10 I'll get to that in a minute.

11 But one of the people that Ms. Glatfelter meant was
12 a gentleman named Arthur Gao from Honeywell. I should have
13 listened more carefully, Ms. Glatfelter. I apologize. But
14 there's another person who I believe they're going to have
15 testify as well -- an IT manager from Boeing. They
16 presumably are going to testify about the invitations that
17 they also received from Mr. Xu for exchanges.

18 Neither Mr. Gao nor this other fellow -- nor anyone
19 else that we're aware of -- are going to testify that trade
20 secrets were ever shared.

21 Mr. Gao's case may be particularly interesting to
22 you because like Mr. Zheng, he never admitted to revealing
23 trade secrets. Although he did, as Ms. Glatfelter
24 indicated, plead guilty to another offense. The fellow from
25 Boeing admitted to nothing.

1 So what we have is a series of trials within a
2 trial, and the prosecutors to their credit advised us some
3 time ago that that's what this was going to be.

4 I personally didn't understand it very well at
5 first, but now I do, because in somewhat, the Government is
6 going to present are a series of examples where Mr. Xu
7 recruited experts, including Gao, including others, and
8 they're going to do that to try to convince you that he was
9 seeking trade secrets.

10 But all of these cases will have the same basic
11 flavor, the same basic theme, and none of them explicitly
12 show the ask, the attempt.

13 As I mentioned during voir dire, there's a lot of
14 circumstantial evidence in this case. It's offered here and
15 not direct evidence.

16 The prosecution will also offer kind of a different
17 kind of trial within a trial, and that's the Safran evidence
18 that Ms. Glatfelter spoke about, and I'll speak about that a
19 little more in a minute; but the evidence is not going to
20 show any relationship to the hacking or computer intrusion
21 of this French company and this French engineer, any
22 relationship to Mr. Xu's recruiting and alleged cultivating
23 of people who share information, which is the gravamen --
24 the basis -- of his indictment.

25 This case is also about global politics, and a

1 thing called The China Initiative. You'll gather from the
2 evidence that the case is very much about global politics.
3 It's about the U.S. versus China trade war, and a program
4 that was started a few years ago by the Department of
5 Justice called The China Initiative.

6 Here's how that came about roughly. The Chinese
7 people through their leader, Xi Jinping, have been
8 transparent and open about their ongoing efforts toward
9 technological development, technological advancement.

10 Their goal, to collect information for
11 technological advancement from outside their country for
12 their use, and, yes, that includes bringing back Chinese
13 nationals to China for the exchanges that Ms. Glatfelter
14 referenced.

15 But the evidence is going to show you that
16 exchanges have been around for many years. They are
17 primarily educational and professional collaborations and
18 sharing of research.

19 In fact, here's an interesting tidbit, the first
20 Chinese exchange students were welcomed to the United States
21 more than half a century ago. Exchanges or collaborations
22 or conferences like these take place all the time all over
23 the world and witnesses will testify about that.

24 China's goal -- getting back to that -- is so that
25 they can build on and improve their products and their

1 processes. Now, this you'll hear makes U.S. multinational
2 companies like GE Aviation who operate in China and
3 others -- China and its manufacturers, like companies in
4 this country, want to advance; but many American companies
5 want to keep China right where it is.

6 These huge multinational companies are afraid that
7 Chinese companies will grow and compete with them. Thus
8 began DOJ's, the Department of Justice's, aggressively
9 investigating people of Chinese descent who our government
10 believe are sharing American ingenuity.

11 The F.B.I. and other agencies cast a wide
12 investigative net, and they've caught up a lot of innocent
13 people. Just like Mr. Xu.

14 And make no mistake, this case is definitely part
15 of the Department of Justice's China Initiative. Officials
16 at the highest level of the Department of Justice have
17 confirmed that.

18 By the way, as an aside, despite this fear that the
19 Department of Justice has about our technology going there,
20 you'll hear evidence that China spends vastly more money --
21 in fact, Ms. Glatfelter referenced this -- vastly more money
22 on technology development today than the United States does.
23 Think about that.

24 So these multinational companies like General
25 Electric Aviation, et cetera, they're doing a lot of

1 business in China, and they go there, you'll hear, primarily
2 for three reasons.

3 One, cheap reliable dependable labor. Maybe you've
4 heard the expression, the peasants coming from the farms.

5 Two, a less restrictive environmental environment.
6 Less restrictive environmental laws and regulations. That's
7 pronounced lacks pollution controls.

8 Three, and very important and increasingly
9 important every day, to exploit. That is, get their foot in
10 the door of the fastest growing economy in the world.

11 China has become an economic superpower. It is a
12 people with a huge new appetite for goods and services, and
13 companies like GE Aviation, Honeywell, whoever else you'll
14 hear about, they want a piece of the action; but they don't
15 want to share their technology.

16 They just want to come in and exploit China and its
17 environment and its people so they can make their products
18 less expensively and keep China in its place.

19 Let me give you an example -- just an anecdotal
20 example of the growth of the Chinese economy. In 2020, just
21 last year, General Motors sold more cars in China than they
22 did in the United States. That's a growing market.

23 And another example of how to stay there: GE
24 Aviation -- the same company that's the alleged victim,
25 primary victim, I suppose, in this case -- now actually

1 makes engines that power the commercial aviation corporation
2 of China's C919. That's a large commercial jet airliner.
3 They actually make the engine that goes on this big
4 airliner. This COMAC. You'll remember from the screen.
5 One of these nefarious companies.

6 GE Aviation wants its share of China's aviation
7 market. Aviation experts you'll hear tell, say that over,
8 over the next 20 years, 39 percent of the demand for large
9 jets will come from Asia.

10 China's fleet of large jets will grow by three
11 times. These are very, very expensive jets, and so General
12 Electric and the other multinational corporations operating
13 in China, they want to keep making and selling planes and
14 engines and things like that China needs.

15 China, as Xi said, their leader, wants to break
16 free, and they want to catch up and technologically they are
17 catching up.

18 In fact, you'll hear testimony during this trial
19 that China was already well on its way to developing these
20 poly composite jet engine containment units that have the
21 technology that the Government claims was a trade secret and
22 that Mr. Xu was allegedly trying to steal from GE. Imagine
23 that.

24 Also, General Electric has joint ventures in China
25 itself. They have a joint venture through an entity known

1 as AVIC -- another of the nefarious companies you saw on
2 that list -- the Aviation Corporation of China, where
3 together they build in China avionic systems for these
4 aircraft.

5 You'll hear about other joint ventures that GE has
6 with China and its government companies. These institutions
7 I'm going to name -- most Mr. Glatfelter already named --
8 COMAC, Commercial Aircraft Corporation of China; AVIC,
9 Aviation Industry Corporation of China; JAST, Jiangsu
10 Association for Science and Technology; and, of course,
11 we've all heard now about Jiangsu University of Aeronautics
12 and Astronomics. That's the university that neither Ms.
13 Glatfelter nor I can pronounce very well.

14 Interesting fact about NUAA, they actually have
15 200,000 members of their university in the U.S. These,
16 ladies and gentlemen, are legitimate thriving, respected
17 corporations and institutions that just happen to be
18 controlled by the Chinese Government as all things in China
19 are; but China does, as Ms. Glatfelter mentioned, have a
20 vastly different culture.

21 As in all countries, when in China, you must obey
22 Chinese laws, respect for their laws and respect for their
23 customs -- which is frankly more important in that
24 society -- and you must play by their rules.

25 This applies to corporations as well as people. As

1 one of the Government's witnesses had said, in China, you
2 have to pay-to-play. What he meant by that is American
3 companies, including American multinational aviation
4 companies, must be prepared to share at least some of their
5 technology if they're going to be present in China. At the
6 end of the day, that's all Chen Feng, this Mr. Xu, Mr. Xu
7 and Mr. Xu sought.

8 China -- you'll learn -- is a very, very different
9 culture. China is a surveillance state. They have no
10 concept of privacy, individual or commercial, like we do;
11 and they don't share the concept of free speech.

12 Chinese people have been monitored electronically
13 for decades, and they expect to be monitored wherever they
14 go. Chinese citizens are monitored from birth to death, and
15 their government is omnipresent.

16 They have a different concept of private property.
17 If you have something, it should be shared with the
18 collective. That's communism. And the use of aliases in
19 China is common as well. Who they are depends on who
20 they're communicating with. It's also common as we have
21 now heard for several people to access the same E-Mail
22 address.

23 Think about that American company whose website you
24 visit who has the friendly young face at the bottom right
25 pop up and say, hi. I'm Jane. How can I help you today?

1 You really think that's Jane? It's probably some kid in his
2 basement in his PJs, but that's a different story.

3 Well, my point is this, folks, these are all things
4 that you will hear about and that you must consider in
5 deciding whether Mr. Xu -- what he did intentionally or
6 not -- or what he intentionally did do or intentionally did
7 not do -- let me start over. What he intentionally did or
8 what he didn't do. Thank you.

9 You have to understand him, and you have to
10 understand his culture in order to understand his
11 intentions, and we will offer you -- offer evidence to help
12 you understand that.

13 He is a product of his culture. He is very, very
14 different from us in many ways. Just as his country is very
15 different from our country, his culture is very different
16 from China's culture -- from our culture. Sorry.

17 During the case, the Government is going to scribe,
18 ascribe some -- they've already started -- some sinister
19 and nefarious meanings like intelligence or Intel,
20 espionage, spy craft, trade craft, aliases, cover names,
21 code names, language in code, et cetera, and they've already
22 called Mr. Xu a spy.

23 Be careful of those words because you are to look
24 objectively at the evidence. What something is called is
25 not relevant unless it is what it is.

1 One of the allegedly dark and sinister
2 organizations that the Government's, Government witnesses
3 are going to discuss is this Ministry of State Security that
4 Ms. Glatfelter mentioned.

5 We will make sure that the MSS and Mr. Xu's work
6 are well described for you. We'll have an expert available
7 to help you understand that, if necessary.

8 But regarding the MSS, Ms. Glatfelter sort of had
9 it half right or half complete. One of her agents, Mr.
10 Reigle, has done a better job in describing the evidence as
11 something of a combination really of the American F.B.I. and
12 the American C.I.A. In other words, domestic security as
13 well as international activity.

14 Like those -- like the F.B.I., it's domestic
15 security. Like the C.I.A., foreign intelligence and
16 counterespionage; but what you should know by now -- and if
17 you don't, you'll learn from the evidence -- like the F.B.I.
18 and the C.I.A., the vast majority of the information which
19 the MSS gathers is not secret information at all.

20 It's public source information which analysts can
21 evaluate, synthesize with other publicly available
22 information to form this intelligence to help them find
23 answers to the questions they're seeking answers to.

24 Mr. Xu has had -- at least before he came here -- a
25 regular job with a company named Nanjing Loute Technology

1 Information Center. The Government might dispute this, but
2 this is a government that's been around for 20 years, and it
3 focuses on aircraft simulation equipment and software.

4 Now, Mr. Xu also worked for the MSS, that's true,
5 as all people must do if asked. It's part of his duty of
6 service to the Motherland, and he was finding sources of
7 information which might be valuable to his country's schools
8 and businesses; and he was inviting people to come to China
9 and share information -- exchanges like I spoke about
10 before.

11 Interestingly, GE Aviation, itself is a partner in
12 one of these exchange since 2013 with AVIC. That's right.
13 The aviation industry -- the evil Aviation Industry
14 Corporation of China. GE is together with them on an
15 exchange program called the Global Civilian Aviation Talent
16 Program.

17 Ironically, it was developed to -- it was designed
18 to, quote, develop future engineering leaders, close quote,
19 in China aviation industry.

20 Folks, the evidence in this case will show that Mr.
21 Xu was anything but a spy. You'll learn very quickly that
22 virtually all of the evidence the prosecutors are offering
23 against him is what's known as open communication.

24 Government agents often call this open channel
25 communication, and open channels are not used by spies doing

1 espionage. Would a spy communicate about stealing trade
2 secrets via WeChat and E-Mail? Would his fellow spies use
3 LinkedIn and Facebook?

4 You'll hear that the Government agents
5 investigating this case easily found and gathered literally
6 all of the evidence that you'll hear and see in this trial
7 because it wasn't hidden.

8 Ladies and gentlemen, this is not evidence of spy
9 craft or trade craft. It's evidence of a man doing his job
10 out in the open.

11 You'll see and hear testimony that confirms that
12 Mr. Xu is not a spy as well. One thing that comes to mind
13 is when he didn't show any interest or didn't -- agreed that
14 if something was prohibited by the guy's company, don't
15 bring it.

16 The witness, James Mulvenon, I think was mentioned.
17 He's interesting because if he's true to what he said in the
18 past, he's going to testify about non-traditional technology
19 transfers. That is, gathering non-trade secret material
20 that companies nonetheless don't want to let go.

21 That's what Mr. Xu was involved in, and that's
22 Mr. -- that will be Mr. Mulvenon's opinion. And really
23 that's the evidence. That's what the evidence will show GE
24 Aviation's complaining about through the F.B.I. and now
25 through these prosecutors in the courtroom. Xu was trying

1 to collect non-trade secret information that GE Aviation
2 didn't want out there at all.

3 You'll learn through the cross-examination I'm sure
4 of a number of different witnesses in this trial that GE
5 Aviation doesn't want anything to be shared by anyone other
6 than them about certain products, so what they've done is
7 they've convinced the F.B.I. that some guy has either stolen
8 or is trying to steal their trade secrets when trade secrets
9 weren't involved at all.

10 As Judge Black will instruct you, a trade secret
11 must be not generally known and not readily ascertainable
12 through proper means.

13 There were no trade secrets involved in this case
14 and none were sought, but the Government's not going to let
15 it go at that.

16 Think about it. Everybody thought that Mr. Zheng
17 was dirty, and he wasn't. So you're going to hear more
18 evidence. There's going to be evidence that, if you're not
19 careful, is going to succeed in convincing you that Mr. Xu
20 is a bad guy. Please keep an open mind about that.

21 You're going to hear stuff like, he's a spy who
22 works for MSS. He's Chinese, and there's a trade war going
23 on with China, and he works for the Government so he must be
24 rotten. The Chinese are co-opting our technology through
25 talent programs and exchanges and the like, and that's bad.

1 Finally, there's the Safran evidence that Mrs.
2 Glatfelter spoke about. Through this evidence, as I
3 mentioned before, you will see that the Safran matter is not
4 in any way connected to the complaints about Mr. Xu and his
5 recruiting and human intelligence work.

6 In fact, it's not mentioned anywhere in his
7 indictment. In fact, the Safran case was charged in Federal
8 Court --

9 MS. GLATFELTER: Your Honor, objection.

10 MR. KOHNEN: -- in United States --

11 THE COURT: Excuse me. There's an objection. I'll
12 see the lawyers at sidebar. See how that goes. On occasion
13 I have to chat with the lawyers outside your hearing, and I
14 would just as soon have one lawyer approach from each side
15 with the court reporter and my law clerk, and we will wait
16 for the court reporter to get over there.

17 (SIDEBAR CONFERENCE HELD.)

18 THE COURT: I know you wouldn't object unless you
19 had to.

20 MS. GLATFELTER: I apologize to Mr. Kohnen because
21 I hate objecting during opening, but this was a subject and
22 matters that have been decided by the Court.

23 I -- you know, you can't unring the bell; and
24 acting like some -- there's something wrong with the
25 indictment or that we have to answer an indictment from

1 another, another jurisdiction is an improper matter for this
2 Jury, and so Mr. Kohnen knows that we can't respond to that,
3 and now this is out there before the Jury. It's unfair.

4 THE COURT: Your position?

5 MR. KOHNEN: Judge, your ruling on the 404(b)
6 Motion was that that evidence can be admitted. We accept
7 that, and so now we want to talk about that evidence, and we
8 want to talk about the fact that in our view, it's not
9 germane to the charge that has been -- the charges that have
10 been brought against our client.

11 THE COURT: So what are you proposing to say?

12 MR. KOHNEN: I'm going to say that he's not a
13 Defendant in the Safran case, which is a matter of public
14 record.

15 THE COURT: Okay. Okay. Just asking.

16 MR. KOHNEN: And I'm sorry. And I'm going to talk
17 about the charges, how they're separate, and I'm going to
18 talk about how he was indicted, I think, four or six years
19 ago -- I have to look at my notes -- and it has no
20 connection to the charges here.

21 Now, that's a matter of opinion, but it's going to
22 come out in the evidence, I believe.

23 MS. GLATFELTER: And I understand it's a matter of
24 public record, but that's not the standard for admission.
25 It has to be relevant, and I think there's a 403 prejudice

1 matter here because the impression left with the Jury is
2 that someone can't be considered liable for a crime --
3 there's no such thing, in other words, as an unindicted
4 co-conspirator, so essentially what Mr. Xu is in that
5 indictment, he's mentioned, but he's not mentioned as a
6 Defendant. He's a Defendant here, and so what Mr. Kohnen is
7 doing is sort of a bait and switch alleging that he can't
8 possibly be involved in Safran because he hasn't been
9 indicted by a Grand Jury there.

10 That's an unfair inference and something that's not
11 proper before the Jury. I don't know how you instruct the
12 Jury. I mean, they can't consider the evidence of an
13 indictment from another jurisdiction involving other
14 people.

15 THE COURT: Right. I'm going to chat with my law
16 clerk outside your presence.

17 MR. MANGAN: Thank you.

18 (Discussion held between Judge Black and Ms. Frankian.)

19 THE COURT: May I see the lawyers, please? My
20 response is, is you can talk about it, but if you mislead
21 the Jury by suggesting something that's not appropriate,
22 like, if he were guilty, he would have been charged as a
23 Defendant in that case, I'm going to correct you in front of
24 the Jury.

25 MR. KOHNEN: Judge --

1 THE COURT: So I think you need to move along
2 expeditiously and not mislead the Jury. I'm sorry. That's
3 my resolution.

4 MR. KOHNEN: Judge, just so you know, I'm with you
5 on that, and I agree. It occurred to me after we left
6 sidebar that the Government has a witness that's going to
7 testify -- my understanding is an F.B.I. agent -- that is
8 going to testify about all this.

9 THE COURT: I've ruled.

10 MR. KOHNEN: I know.

11 THE COURT: It's out there. I think you need to
12 move along, and if you mislead the Jury by implying
13 something that the evidence does not reflect, I'm going to
14 correct you in front of the Jury. You may proceed.

15 (SIDEBAR CONFERENCE CONCLUDED.)

16 THE COURT: There are circumstances when I have to
17 talk to the lawyers outside your presence. I find it rude
18 and apologize. They know I don't like it. There are times
19 it has to happen, and it had to happened here. I appreciate
20 your understanding. You may proceed, Mr. Kohnen.

21 MR. KOHNEN: Thank you, Your Honor. Ladies and
22 gentlemen of the Jury, I apologize for the continuance too.
23 I'll try to get back on track as quick as I can.

24 So here's the thing, you're going to hear evidence
25 about the Safran case. That's for sure. That was a case

1 that was charged in the United States District Court in the
2 Southern District of California six years ago. Mr. Xu is
3 not a Defendant in that case.

4 There were totally different charges brought in
5 that indictment than you're dealing with today. That was a
6 computer hacking case. It wasn't a theft of trade secrets.
7 It wasn't an attempted theft of trade secrets. It wasn't an
8 alleged conspiracy to steal trade secrets.

9 Now, general -- interestingly, GE Aviation does
10 have a joint venture with a French company known as Safran
11 that operates in China, but the Safran charges make no
12 mention of that even. It involves a French victim. An
13 alleged offense perpetrated from China involving computer
14 servers in Northern California. There is no discussion of
15 the Southern District of Ohio, and there's no discussion of
16 co-opted employees.

17 Ladies and gentlemen, one thing that Mrs.
18 Glatfelter said that I completely agree with, and I hear
19 Judge Black say it all the time as well, and that is use
20 your common sense. Don't abandon your common sense because
21 after all the evidence is in, the evidence in this case is
22 going to show that this was a setup. That our client is an
23 unfortunate pawn in a trade war between the world's two
24 economic superpowers as a result of an investigation
25 initiated by one of the world's most powerful multinational

1 corporations from Cincinnati.

2 It was a setup, and the Government will be unable
3 to prove its case beyond a reasonable doubt. They will be
4 unable to prove that our client intended to commit the
5 crimes he's been charged with, and they will fail in
6 meeting the elements of the offense, and thus their burden
7 of proof.

8 I, again, also want to thank you for your service.
9 Thank you for your time. Thank you for your patience, and
10 thank you for the work we all have ahead of us.

11 Your Honor, that concludes my remarks.

12 THE COURT: Thank you, Mr. Kohnen.

13 Ms. Frankian, will you approach, please?

14 (The Court confers with Ms. Frankian.)

15 THE COURT: I just want to confirm with my
16 lawyer that it is lunchtime. You've done a good job
17 listening to opening statements. That's a credit to you.
18 After lunch, we'll start to present evidence. During the
19 lunch break -- we'll break from 12:30 -- quarter of two; is
20 that right?

21 MS. FRANKIAN: Yes, Judge.

22 THE COURT: Yes? I'm trying to break for an hour
23 and 15 minutes. During the break -- I think lunch is being
24 provided. During the break, same instructions. We have
25 fancy -- during the lunch break, take a break. Don't

1 discuss the case among yourselves. Don't discuss the case
2 with anyone.

3 No forms of communication, including phone, E-Mail,
4 text, Facebook, Twitter, et cetera, about the case. If
5 anybody violates any of that or causing you angst, let me
6 know.

7 No independent research about the trial. Don't
8 listen to or watch any news reports. Can't check Google,
9 Facebook, Twitter to find information about any aspect of
10 the case.

11 And, finally, remember, it's especially important
12 that you keep an open mind. You haven't heard a lick of
13 evidence yet. Don't form or express an opinion on the case
14 until it's finally submitted to you after all the evidence
15 is in.

16 I want you to enjoy your lunch break, and out of
17 respect for you, we'll rise as you leave, and you are to go
18 to the ninth floor.

19 COURTROOM DEPUTY: All rise for the Jury.

20 THE COURT: You can lead them out, sir.

21 (The Jury exited the courtroom.)

22 THE COURT: The Jury has left the courtroom. The
23 door is closing with some assistance. Are you ready to
24 break for lunch? If you need to suggest something to me
25 about a corrective instruction, if any, you can do that

1 before they come back, Ms. Glatfelter.

2 MS. GLATFELTER: Thank you, Your Honor.

3 THE COURT: Are there other matters I need to touch
4 base with you on before we go have lunch and take a break
5 from the Government's perspective?

6 MR. MANGAN: No, Your Honor.

7 THE COURT: Defense?

8 MR. KOHNEN: No, thank you. Judge.

9 THE COURT: Okay. No talking about the case --
10 strike that. Have a good lunch. We're in recess.

11 COURTROOM DEPUTY: The court is now in recess.

12 (Court was in recess at 12:25 p.m. and resumed at 1:54 p.m.)

13 COURTROOM DEPUTY: All rise. This court is back in
14 session pursuant to the recess.

15 THE COURT: Please be seated. We're back in the
16 courtroom on the record. Defense team is present, including
17 the Defendant. Government's team is present.

18 Is the Government ready to proceed?

19 MR. MCKENZIE: Yes, Your Honor. At this time the
20 Government calls Dr. James Mulvenon. Well, if we can get
21 him in before the Jury.

22 THE COURT: Indeed. Is the Defense ready to
23 proceed?

24 MS. CORS: Yes, Your Honor.

25 THE COURT: Where is your witness?

JAMES MULVENON, Ph.D. -- DIRECT

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1 MR. McKENZIE: In the hall, Your Honor.

2 THE COURT: Let's bring the witness in while we
3 call for the Jury. If you would call for the Jury, please.
4 It will take a few minutes. Why don't we put the gentleman
5 behind Ms. Glatfelter for the time being.

6 COURTROOM DEPUTY: All rise for the Jury.
7 (The Jury entered the courtroom.)

8 THE COURT: You may all be seated. The 15 members
9 of the Jury have rejoined us in the courtroom. I hope you
10 had a decent break, and I apologize for the delay.

11 The Government's going to begin to present
12 evidence. Who does the Government call at this time?

13 MR. McKENZIE: Your Honor, the Government calls Dr.
14 James Mulvenon.

15 THE COURT: If that gentleman would approach,
16 attend to the witness stand, and if counsel would state his
17 name for the record, please?

18 MR. McKENZIE: Counsel's name is Matthew McKenzie.

19 THE COURT: Mr. McKenzie. Would you pause and
20 raise your right hand for the oath to tell the truth?

21 **JAMES MULVENON, Ph.D., GOVERNMENT'S WITNESS, SWORN**

22 THE WITNESS: Yes, sir.

23 THE COURT: Very well. You may be seated. And I'm
24 ultimately going to want you close to that expensive Federal
25 microphone.

1 THE WITNESS: I'll get this little television out
2 of my way.

3 THE COURT: You may proceed, Counsel.

4 MR. McKENZIE: Your Honor, just for clarification,
5 may I remove my mask?

6 THE COURT: Yeah. The lawyers at the podium may
7 remove their masks. The Jury signed off on that. Go ahead.

8 **DIRECT EXAMINATION**

9 **BY MR. McKENZIE:**

10 **Q** Dr. Mulvenon, by whom are you employed?

11 **A** I'm currently employed by a company called SOS
12 International.

13 **Q** Please explain to the Jury the mission of SOS
14 International?

15 THE COURT: And before you do, would you state your
16 name for the record, please?

17 THE WITNESS: My name?

18 THE COURT: Would you state your name for the
19 record, please?

20 THE WITNESS: Yes, my name is James Mulvenon.

21 THE COURT: You may continue, counsel.

22 **BY MR. McKENZIE:**

23 **Q** What is the mission of SOS International?

24 **A** SOS International is a defense industrial company
25 based in Reston, Virginia that primarily performs contracts

1 for the Department of Defense.

2 **Q** What is your title?

3 **A** I'm the Director of Intelligence Integration.

4 **Q** Please explain to the Jury some of your duties and
5 responsibilities in that role?

6 **A** So I'm primarily responsible for our relationships
7 with a variety of offices throughout the U.S. Government in
8 the Department of Defense, in the intelligence community,
9 and in Federal Law Enforcement, and I'm also responsible for
10 integrating the various intelligence-related capabilities
11 within the company itself across different business
12 divisions.

13 **Q** To be clear, are you yourself employed by the Federal
14 Government?

15 **A** I am not. I've never been employed by the Federal
16 Government.

17 **Q** Now, with respect to, to China, what, if any, duties
18 and responsibilities do you have with respect toward
19 intelligence -- gathering intelligence toward China?

20 **A** So because I'm a Chinese linguist and have spent my
21 career studying in China, it's not surprising that we have a
22 very large China-related business of which I'm the lead for
23 all of that in the company.

24 **Q** And what type of intelligence do you gather?

25 **A** So we, we are exclusively focused on what's called

1 open source intelligence or publicly available information.
2 So this is not classified collection like you would think of
3 from an intelligence agency, but we collect whatever the
4 Chinese Government publishes, posts on-line, magazines,
5 newspapers, books, websites, and things like that that are
6 all publicly available.

7 **Q** I'd like to pivot and discuss your educational and
8 work history starting with your education. Directing your
9 attention to in or about 1991, did there come a time that
10 you earned a Bachelor's degree?

11 **A** I did. I earned a Bachelor's degree in China studies
12 from the University of Michigan in Ann Arbor.

13 **Q** What did the -- what did China studies entail at the
14 University of Michigan?

15 **A** Well, the core requirement was language study. So I
16 took three years of Chinese, but it was an inner
17 disciplinary major which meant that you could then take
18 China-related classes across many different departments as I
19 did. So I've primarily focused on political science, but
20 also anthropology, history, literature, things along those
21 lines.

22 **Q** While you were earning your undergraduate degree, were
23 you introduced to the Chinese Government, how it functions,
24 and how it makes decisions?

25 **A** Yes. Two of my professors in political science, Ken

1 Lieberthal and Mike Oxenberg, were at the time the leading
2 scholars in the United States on how the Chinese Government
3 is structured and how it functions.

4 **Q** After earning your degree at the University of
5 Michigan, did you have the opportunity to study abroad in
6 China?

7 **A** I did. I studied at Fudan University, which is in
8 Shanghai in China.

9 **Q** What did you study?

10 **A** I studied Communist Party History in the Communist
11 Party History Department for about a year and a half.

12 **Q** In what language were those courses taught?

13 **A** They were taught entirely in Chinese.

14 **Q** Do you still speak Chinese?

15 **A** I do. Obviously as a manager, I spend more time
16 making sure that new millennials are doing their jobs, but I
17 do continue to do my own personal research exploiting
18 Chinese language materials.

19 **Q** Now, directing your attention to in or about 1994, did
20 there come a time that you sought and obtained a Master's
21 degree?

22 **A** After I came back from China, I entered the Master's
23 and Ph.D. program at the University of California Los
24 Angeles, UCLA; and in 1995, I believe, I earned my Master's
25 in political science.

1 Q And after earning your Master's degree, did you go on
2 to complete the doctoral program you spoke about?

3 A I did. I completed my doctorate in August 1998.

4 Q What was the subject of your Ph.D.?

5 A It was on the Chinese Military's International
6 Business Empire, and I entitled it Soldiers of Fortune.

7 Q I'm sorry. When I said Ph.D., I meant dissertation.
8 What is -- what is a dissertation?

9 A So a dissertation is the final long thesis that you
10 have to write in order to earn a Ph.D. degree in political
11 science, and the subject of that dissertation was the
12 Chinese Military's International Business Empire.

13 Q Did you later publish that dissertation in the form of
14 a book?

15 A I did.

16 Q Please share with the Jury some of the key takeaways
17 conclusions from that dissertation?

18 A Well, it was, it was -- you know, the fortunate thing
19 for me was the year that I finished the dissertation was the
20 year that the Chinese Government decided to pull the Chinese
21 military out of doing commercial business, so one of the
22 nice things was I was able to put an end date on it.

23 I was able to say they were in business from 1927 to
24 1998 and then it ended, which meant that by the time I got
25 the book out, if things had changed, you know, that

1 obviously would have made the book irrelevant.

2 But I mainly talked about how the Chinese military's
3 privileged access to real estate and infrastructure and
4 ports and rail and everything else, which was normally for
5 military purposes, they then were able to commercialize all
6 of that in the early days of the Chinese economic
7 modernization and become a very powerful economic actor but
8 also a very corrupt actor in the system.

9 **Q** Now, I'd like to walk through your work history.
10 Directing your attention to in or around 1995, did there
11 come a time that you were employed by Rand Corporation?

12 **A** Yes, in 1995, while I was still in graduate school, I
13 joined the Rand Corporation there in Los Angeles. It was
14 based in Santa Monica on the ocean and was able to work
15 there as a research assistant while I was finishing my Ph.D.

16 **Q** Please explain to the Jury what the Rand Corporation
17 is?

18 **A** The Rand Corporation is a national security think tank
19 that was very famous during the Cold War for coming up with
20 many of the new ideas that we had, for instance, about
21 nuclear warfare.

22 **Q** And explain to the Jury your duties and
23 responsibilities while you were at Rand?

24 **A** I was a research assistant to the main China experts
25 who worked there, so I gathered their Chinese materials for

1 them. I did translation and exploitation of Chinese
2 language materials, and then I was also able to publish my
3 own reports as well that I did -- that I did myself.

4 **Q** Did you remain a research assistant the entire time
5 you were at Rand or did you then gain additional positions
6 and move up the ladder, so to speak?

7 **A** I did. One of the reasons I finished my Ph.D. was
8 because in order to be hired as full-time staff at Rand
9 then, you had to have a Ph.D.; so in 1998, when I finished
10 my Ph.D., they then hired me on as full-time research staff.

11 **Q** And once you were a full-time member of the staff,
12 what were your duties and responsibilities?

13 **A** I ran research programs. I performed contracts for
14 U.S. Government sponsors, producing public reports that were
15 then available via Rand's website.

16 **Q** Did that all focus on China or predominantly focus on
17 China?

18 **A** Predominantly focused on China, Chinese defense
19 industries, Chinese Internet censorship, things along those
20 lines.

21 **Q** Directing your attention now to in or about 2004, did
22 there come a time that you started a new position with
23 Defense Group Incorporated?

24 **A** I did. In 20 -- October 2004, Defense Group
25 Incorporated asked me to start an intelligence organization

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1 within their company that we later called The Center
2 Intelligence Research Analysis, so I left Rand and assumed
3 that new position.

4 **Q** What is Defense Group Incorporated?

5 **A** Defense Group Incorporated is also a defense industry
6 company founded by a former Reagan era senior Pentagon
7 official Dr. Jim Wade, and it primarily focused on nuclear
8 weapons and nuclear weapons effects.

9 **Q** And what were your duties and responsibilities with
10 the intelligence center within Defense Group Incorporated?

11 **A** Well, I was the Vice President in charge of that
12 entire organization, and so everything from raising the
13 money on via contracts, interacting with government
14 customers, managing the research staff, performing quality
15 assurance on the publications.

16 **Q** Directing your attention to in or about 2007, did
17 there come a time that you began a new position within DGI
18 or were promoted?

19 **A** Yes. I became Senior Vice President for the
20 Intelligence Division.

21 **Q** And did you hold this position until you started your
22 current, current job at SOS?

23 **A** Right. So in, in March 2017, Dr. Wade, the owner of
24 Defense Group, passed away, and the board sold the company
25 to the company I currently work for, SOS International, so

1 for all intents and purposes, my job has not changed. We're
2 in the same office. I'm with the same people. It's just
3 that we now have a different company name because of the
4 acquisition.

5 **Q** In addition to your dissertation, have you published
6 any, any books on China?

7 **A** Yes.

8 **Q** Well, what are the titles?

9 **A** So in 2013, with two senior officials from the U.S.
10 Government, I published a book entitled Chinese Industrial
11 Espionage.

12 **Q** And what was your involvement in drafting that book?

13 **A** I wrote about 40 percent of it. I wrote the chapters
14 on cyber espionage. I wrote the chapter on traditional
15 espionage involving Ministry of State Security intelligence
16 officers.

17 **Q** And what was the major conclusion of that book?

18 **A** The major thrust of that book was to really understand
19 this phenomena of non-traditional collectors. These were
20 the scientists and researchers and corporate personnel and
21 others that formed this new kind of collection in the United
22 States that was not like traditional intelligence operations
23 where you had a case officer managing agents and collecting
24 data; and we documented at a very high level of detail the
25 massive bureaucratic infrastructure within China that was

1 set up to collect and process all of the information that
2 they were gathering in the United States.

3 **Q** In addition to your dissertation and the book that
4 you've just testified about, do you have any additional
5 publications, such as articles?

6 **A** Yes. Most relevant probably for this situation there
7 was a follow-on book in 2018, entitled China's Quest For
8 Foreign Technology Beyond Espionage, in which we documented
9 all of the new forms of Chinese science and technology
10 collection in the United States that had emerged since the
11 2013 book.

12 **Q** Have you ever testified before Congress?

13 **A** I have.

14 **Q** Which committees have you testified before?

15 **A** Well, there's a Congressionally mandated -- there are
16 two Congressionally mandated commissions on China. The
17 Congressional Executive Commission on China and the U.S.
18 China Economic and Security Review Commission, and I've
19 testified before both of those probably ten times; but I've
20 also testified in the -- on the Senate side in front of
21 Senate Foreign Relations, Senate Banking, and then on the
22 House side in front of the House Foreign Affairs Committee.

23 **Q** And when you were testifying before those committees
24 in the Senate and the House, what was the general topic on
25 which you were presenting testimony?

1 **A** It was always China, and it generally involved illegal
2 tech transfer activities, Chinese Government investment in
3 the United States, Chinese export -- U.S. export control
4 issues with respect to China, so that tended to be the nexus
5 of what I was talking about.

6 **Q** Have you ever testified in Federal Court?

7 **A** I have, twice.

8 **Q** And each time you testified, were you qualified to
9 provide opinion testimony?

10 **A** I was.

11 **Q** Now, during the course of your studies, your
12 professional career, and your publications, had you become
13 familiar with the structure and decision making process of
14 the Chinese Government?

15 **A** I have.

16 MR. McKENZIE: Your Honor, may we please show the
17 witness and Counsel what has been marked as Government's 10
18 for identification?

19 THE COURT: Yes.

20 (Government's Exhibit 10 was marked for identification.)

21 (Government's Exhibit 10 was shown on the screen.)

22 **BY MR. McKENZIE:**

23 **Q** Dr. Mulvenon, I'm showing you what's been previously
24 marked as Government's Exhibit 10 for identification. Do
25 you recognize this?

1 THE WITNESS: I've got nothing here, Your Honor
2 (Indicating.)

3 THE COURT: All right.

4 THE WITNESS: I can see it (Indicating) --

5 THE COURT: Give us a moment, and I actually want
6 to see it before the Jury does, if that's still possible.

7 THE WITNESS: No, that's fine. I can see it on the
8 clerk's too. Oh, here it is.

9 THE COURT: Just a moment. Somebody learned will
10 come fix this.

11 THE WITNESS: It's fixed.

12 THE COURT: Very well.

13 THE WITNESS: Yes, I can see it.

14 **BY MR. McKENZIE:**

15 **Q** What is this?

16 **A** This is a simplified chart of the structure of the
17 Chinese Government.

18 **Q** Did you help create this chart?

19 **A** I did.

20 **Q** Will this exhibit help the Jury understand your
21 testimony?

22 **A** It will, in order to understand some of the
23 complicated relationships between different organizations
24 that you're going to refer to, yes.

25 MR. McKENZIE: Your Honor, at this time I'd move to

1 admit Government's Exhibit 10 into evidence.

2 THE COURT: Any objection?

3 MS. CORS: No, Your Honor.

4 THE COURT: It's admitted. You can publish it to
5 the Jury.

6 (Government's Exhibit 10 admitted.)

7 (Government's Exhibit 10 was shown on the screen for Jury.)

8 **BY MR. McKENZIE:**

9 **Q** Dr. Mulvenon, turning your attention to the top right
10 corner of the exhibit. What do the boxes in red signify?

11 **A** The boxes in red are Communist -- Chinese Communist
12 Party organizations.

13 **Q** What is the Chinese Communist Party?

14 **A** So the Chinese Communist Party is currently the single
15 party that rules China. It is the head of their
16 authoritarian government, and it is very similar in
17 structure and intent to other Communist Parties that you may
18 have heard of, like, the Communist Party that headed up the
19 Soviet Union during the Cold War.

20 **Q** You said that there is -- it was the single party.
21 Are there other parties in China?

22 **A** There are some very small minor parties that the
23 Communist Party has kept around for window dressing, but
24 there are no other political institutions in China that
25 challenge the single party rule of the Chinese Communist

1 Party. It alone rules China.

2 THE COURT: Counsel, just a moment. Jurors, those
3 screens pull out and tilt if I want to do that. If you
4 break it -- all right. Looks like that may have helped.
5 Please proceed, Counsel.

6 **BY MR. McKENZIE:**

7 **Q** Is every single Chinese citizen a member of the
8 Chinese Party?

9 **A** No. There are a lot of party members, though. Almost
10 100 million out of a population of approximately
11 1.4 billion, so something, like, six or seven percent of the
12 population are Party members.

13 **Q** Are you familiar with the term Cadre as it relates to
14 the Chinese Communist Party?

15 **A** Absolutely. It's a very important term in Chinese.
16 It's Ganbu, and it generally means someone who is actively
17 working on behalf of the Party doing the Party's business.

18 **Q** How does the Chinese Communist Party relate to the
19 rest of what we're going to see on the chart -- meaning the
20 Government and the military?

21 **A** Well, Communist Parties like the Chinese Communist
22 Party adhere to some important principles. They primarily
23 came from Vladimir Lenin, and one of them is the Communist
24 Party must penetrate all of the other elements of society.

25 So the Chinese Communist Party penetrates all of the

1 other boxes that you see on this screen. Most of them, you
2 know, if it's government organizations, the leaders of those
3 government organizations are also Party members. Senior
4 officers in the military are also Party members, and it is
5 often the case that the Party committee within those
6 organizations is the real power, not necessarily the person
7 who is identified as the head of that organization.

8 **Q** Before we get to the larger parts of the government, I
9 would like to start at the top of this exhibit where it says
10 Politburo Standing Committee.

11 Will you explain what that term is and how the
12 Politburo Standing Committee relates to the rest of this
13 chart?

14 **A** So the Politburo Standing Committee is the smallest
15 and most powerful organization within the Chinese Communist
16 Party. It's currently made up of seven people, and those
17 seven party members exercise top level authority and power
18 within the Chinese system.

19 **Q** Who is the, who is -- is there a singular head of the
20 Politburo?

21 **A** So while the Communist Party is supposed to be run
22 through so-called collective leadership, in essence, there
23 is always one person who is considered first among equals.

24 Currently that is a man names Xi Jinping; and the way
25 you know in the Chinese system that he is first among equals

1 is he holds three critical positions.

2 He's the General Secretary of the Chinese Communist
3 Party, so he's the head of the Communist Party. He's the
4 Chairman of the Central Military Commission, who is also on
5 this chart, which means he's the head of the military; and
6 he's also the Head of State or President of the Chinese
7 Government of the People's Republic of China, so because he
8 holds those three positions, he is considered the paramount
9 leader within the system.

10 **Q** Quick detour on naming conventions in China. In the
11 west are family names, or our last name, come last, and then
12 we have a given name, or first name, is that the same in
13 China or is it somewhat different?

14 **A** No, it's, it's different. If you're speaking in a
15 Chinese context, the family surname comes first, and then
16 the given name, so when I say that his name is Xi Jinping
17 that means that his surname is Xi, and his given name is
18 Jinping.

19 **Q** Thank you. I'd like to turn your attention now to the
20 Politburo. What is Politburo, and how does it relate to the
21 Politburo Standing Committee?

22 **A** So those three top red boxes are kind of nested with
23 one another. So the Central Committee is a group of about
24 400 people that are the most senior Party leaders throughout
25 the system, and they vote to elect; and in this case, the

1 Politburo, which is about 25 people of the most senior
2 people, and then that Politburo votes to elect the most
3 senior leaders for the Standing Committee.

4 So by definition, members of the Standing Committee
5 and members of the Politburo are also members of the Central
6 Committee. It just sort of next down to a smaller number of
7 people as you get to the top of the chart.

8 **Q** So what is the role of the Central Committee and then
9 the pyramid up to the Politburo Standing Committee, what is
10 their role in shaping policy and decisions in China?

11 **A** So the Central Committee is largely honorific. It
12 only meets a couple of times a year, and its main role is to
13 simply ratify decisions made by the higher elements and also
14 to hold these elections to be able to elect people to the
15 Politburo and the Politburo Standing Committee.

16 People on the Politburo, those 25 people, have
17 significant jobs. So they're not just members of the
18 Politburo. They tend to also be the Party's Secretary of
19 major cities like Shanghai or Beijing or things like that;
20 and then finally the Politburo Standing Committee are the
21 seven people in the current configuration who make the most
22 significant decisions across the entire system, so major
23 foreign policy decisions, major economic decisions, major
24 military decisions.

25 **Q** Directing your attention to the box below Central

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1 Committee that says Party Apparatus, what is the Party
2 Apparatus, and is it really that confined?

3 **A** So that was just meant to be a catch-all for the fact
4 that there are Party organizations at every level of system
5 in China, so at the national level in Beijing then down to
6 the provincial level, which is what China calls -- you know,
7 what we would call states. China calls provinces. All the
8 way down to the very lowest levels.

9 There are part organizations related to propaganda,
10 related to organization, related to ideology work, and so
11 all -- we sort of subsumed all of that entire national
12 organization into this one box called the Party Apparatus;
13 but the main intent was to say that those are those Party
14 Cadre that we were talking about that work throughout the
15 system as, as members and operational personnel of the
16 Communist Party.

17 **Q** Directing your attention to the left box in green.
18 Very briefly what is the Central Military Commission?

19 **A** So the Central Military Commission is the top military
20 leadership organization in China. You can think of it as
21 roughly analogous to the Joint Chiefs of Staff at the
22 Pentagon, and so these are the top commanders, the service
23 branch leads for the Air Force and Navy and Rocket Forces
24 and things like that, and this organization is lead by Xi
25 Jinping, who is a civilian, and they make all of the major

1 military decisions for the entire Chinese military system.

2 **Q** And then turning your attention to the right box in
3 gray where it says State Council -- before I start that
4 question, what do the boxes in gray represent on this
5 chart?

6 **A** So the boxes in gray are, are government organizations
7 defined as sort of Executive Branch Government like we have
8 in the United States.

9 So I realize that can be somewhat confusing, because
10 I'm basically saying the Chinese Communist Party is the head
11 of the Chinese system; but if you think about government as,
12 you know, people who are running Ministries related to water
13 resources, and the people who are carrying out the daily
14 functions of government people, that's what those gray boxes
15 are.

16 **Q** Are Chinese Communist Party members present in --
17 throughout the Government?

18 **A** Yes. Almost every senior military officer and
19 government official in China is also a Party member. It is
20 extremely rare to have a government or military leader who
21 is not a Communist Party member.

22 **Q** Now, I'd like to turn your attention back to the State
23 Council and ask you to explain that term to the Jury?

24 **A** So the State Council is roughly analogous to President
25 Biden's cabinet, so it's made up of the heads of all of the

1 major Ministries in China, and ministry's almost exactly the
2 same as the word department in our Federal Government.

3 So China has a Ministry of Education. We have a
4 Department of Education, and they perform the same function,
5 and then there's about a dozen or so so-called commissions
6 also in the State Council, but it is roughly a gigantic sort
7 of government cabinet; and it's headed by a man who is also
8 on the Politburo Standing Commission named Li Keqiang, who
9 is the premier or Prime Minister of China.

10 In other words, the number two person in the Standing
11 Committee is always the person who is responsible for
12 running the day-to-day operations of the Chinese
13 Government.

14 **Q** Right.

15 MR. McKENZIE: And I ask that we scroll down in the
16 exhibit so State Council can still be seen at the top.
17 Right there. Thank you very much.

18 **BY MR. McKENZIE:**

19 **Q** I'd like to direct your attention to the next row
20 where there are four different Ministries listed. Are these
21 the only Ministries in the Chinese Government?

22 **A** No. This is four out of about 25.

23 **Q** I'd like to start with the Ministry of Science and
24 Technology. Are you familiar with that Ministry?

25 **A** I am.

1 **Q** Please describe to the Jury what the Ministry of
2 Science and Technology is?

3 **A** So there really isn't a good analogy in the American
4 system to this Ministry. It is a very large government
5 organization dedicated to developing strategies and plans
6 and programs and funding for major science and technology
7 initiatives that China wants to undertake in order --
8 primarily to achieve certain economic modernization and
9 military modernization goals.

10 **Q** You mentioned strategy and planning. Are you familiar
11 with the term Five-Year Plan?

12 **A** Five-Year Plans are very important in Communist and
13 Leninist systems. They -- you know, by definition,
14 Communist Parties love to plan, and the most important
15 planning unit within these types of systems is the so-called
16 Five-Year Plan.

17 We are currently in China in the -- on the 14th
18 Five-Year Plan, so they've been doing this for 70 years, and
19 that 14th Five-Year Plan actually started this year in 2021.

20 **Q** So explain to the Jury how a Five-Year Plan works,
21 from how it's developed to how it's implemented?

22 **A** So, first and foremost, what really matters is the
23 objectives that are set that they want to achieve by the end
24 of the five years, and so they set those objectives, and
25 then they develop planning requirements for all the programs

1 and the things that they would need in order to achieve
2 those objectives by the end of the five-year period; and
3 then every one in the system is given their own smaller
4 pieces of this that they need to implement, and this becomes
5 basically the metrics for the entire system as to how
6 performance is judged.

7 **Q** And how is the Five-Year Plan communicated to the
8 public?

9 **A** So it's very rare for the Five-Year Plan as a standing
10 document to be published. In fact, I don't think we've ever
11 seen a full copy of one, but it is heavily publicized in the
12 Chinese state media, so the goals of the plan, you know, key
13 programs that are going to be launched, key things that are
14 going to be funded receive a tremendous amount of fanfare,
15 so we're often able to reverse engineer the key elements of
16 the plan from that very loud state media coverage of its
17 launch.

18 **Q** I'd like to turn your attention to the far right of
19 the screen where it says Ministry of Education. Please
20 explain to the Jury what the Ministry of Education is, and
21 what it does?

22 **A** So this is the easiest one on the chart in a sense
23 that it -- the role of the Chinese Ministry of Education is
24 almost exactly the same as the U.S. Department of Education.

25 In other words, it sets high level education policy

1 across the entire Chinese system, whether that's curricula,
2 teacher training, things along those lines; but one of the
3 big differences is, is that whereas in the United States we
4 have private universities as well as state universities but
5 that are still run by individual State Boards of Regents and
6 things like that, in China all of the universities in China
7 are directly subordinate to the Ministry of Education, and
8 the party committee of the Ministry of Education chooses the
9 leaders of those universities as well as even Deans and
10 Provosts and heads of departments.

11 **Q** I'd like to turn your attention now to the Ministry of
12 Industry and Information Technology. That's a mouth full.
13 Is that sometimes referred to as the MIIT?

14 **A** Yes.

15 **Q** Please explain what the MIIT is to the Jury?

16 **A** So the MIIT is a massive organization that is
17 basically in charge of all industrial planning in China, and
18 so within MIIT, for instance, there are planning Bureaus
19 related to every industry you could think of -- petroleum,
20 chemicals, telecommunications -- and within each of those
21 offices, they then manage all of the industry factories and
22 companies throughout China that are in that particular
23 industry.

24 They develop the smaller parts of the Five-Year Plans
25 related to that industry. They develop the objectives for

1 it, the funding for various initiatives to be able to fix
2 bottlenecks or gaps, and so it is just sort of a massive
3 centrally planned organization.

4 **Q** You mentioned objectives and initiatives, are you
5 familiar with the phrase Made in China 2025?

6 **A** Yes. So Made in China 2025 was a really important
7 industrial plan that was published in 2015 just before the
8 start of the 13th Five-Year Plan; and it identified ten
9 critical industrial areas that the Chinese Government
10 believed were going to be essential for the future economic
11 modernization of the country, and then it identified within
12 those what the bottlenecks were, you know, what kind of
13 progress they wanted to make up to the year 2025; and then
14 put billions of dollars worth of funding toward being able
15 to achieve those objectives.

16 **Q** You mentioned that there were ten areas identified in
17 that Made in China 2025. Was aviation industry one of
18 those --

19 **A** Yes.

20 **Q** -- factors?

21 **A** Yeah, aviation and aerospace was definitely one of the
22 ten industries identified as a key priority under Made in
23 China 2025.

24 **Q** Was that the first time that MIIT had identified
25 aviation as a key industrial sector for the PRC Government?

1 **A** No, no. Aviation has actually been a key priority for
2 decades, and a key source of frustration because whereas
3 China has wanted to build, for instance, its own commercial
4 aircraft, its failures to do that have resulted in them
5 forced to buy either Boeing or Airbus.

6 **Q** Now, I'm going to direct your attention to a box down
7 and to the right. The State Administration of Science,
8 Technology, and Industry for National Defense. Is that
9 sometimes called SASTIND?

10 **A** It is because that's a real mouth full.

11 **Q** Will you can please explain to the Jury what the
12 SASTIND's role is?

13 **A** So SASTIND was an organization that was set up in
14 order to communicate the requirements from the military to
15 the Defense Industrial Base, to the companies that were
16 building China's weapons -- the State-Owned Enterprises that
17 were building China's weapons; and so that is, its primary
18 function is to be the intermediary to say what are the
19 military requirements and then to make sure that the Defense
20 Industrial companies were producing weapons that met those
21 requirements.

22 **Q** Now, what, if any, relationship does the Ministry of
23 Industry and Information Technology have with universities
24 in China?

25 **A** So through SASTIND there are a subset of universities

1 that, you know, frankly, for lack of a better term, I call
2 them Defense Industrial Universities.

3 These are universities that are largely engineering
4 schools and are deeply, deeply connected to the Chinese
5 defense industry and the military system, and largely do
6 research and academic training to train people to basically
7 build weapons in the Defense Industrial Base.

8 **Q** Does the United States have an, an analogous type of
9 university that you can point to?

10 **A** No, and that's one of the difficulties. We don't
11 really have anything in the United States that would
12 approach these Defense Industrial Universities, particularly
13 the closeness of their ties to the defense industries and to
14 the military.

15 **Q** Directing your attention to the bottom right corner,
16 are you familiar with the Nanjing University of Aeronautics
17 and Astronautics?

18 **A** Yes, more commonly known as the NUAA. It is one of
19 the oldest and most prestigious of those Defense Industrial
20 Universities; and as you can see from the title, primarily
21 focuses on aviation research, primarily military aircraft,
22 as well as space, space craft.

23 **Q** Are you familiar with the term Seven Sons of National
24 Defense as it relates to NUAA?

25 **A** Yes. So within the Chinese system the most -- the

1 oldest and most prestigious of these Defense Industrial
2 Universities, there are seven of them, and they are known as
3 the Seven Sons of National Defense, and NUAA is one of those
4 seven sons.

5 **Q** Now, can you please explain how the management of NUAA
6 works between the Ministry of Industry and Information
7 Technology and the Ministry of Education?

8 **A** Sure. So they're sort of co-parenting in a sense.
9 The Ministry of Education is largely responsible for the
10 running of NUAA as a university. So appointing leadership,
11 curricula policy, teaching and testing, and things along
12 those lines.

13 Whereas SASTIND under the MIIT is almost entirely
14 focused on determining what the defense and military-related
15 research agenda is at the university. So they have pretty
16 clear lanes in the road that separate their
17 responsibilities.

18 **Q** I'd like to pivot now to State-Owned Enterprises. Are
19 you familiar with the term State-Owned Enterprises as it
20 relates to China?

21 **A** Yes.

22 **Q** Will you please explain to the Jury what a State-Owned
23 Enterprise is?

24 **A** In China currently a State-Owned Enterprise is a
25 company that is majority owned by the Chinese Government,

1 not necessarily 100 percent. They have outside investors in
2 many cases, but many of these very large government
3 dominated companies grew out of the socialist period and
4 were the sort of mainstays of the socialist production, and
5 then they've tried to transform them as China underwent its
6 economic revolution.

7 **Q** I'm going to direct your attention to the box in the
8 middle that says State-Owned Assets Supervision and
9 Administration Commission or SASAC.

10 Please explain to the Jury what SASAC's role is as it
11 relates to State-Owned Enterprises?

12 **A** So as you can imagine, many of these State-Owned
13 Enterprises are huge. They're bloated. They are
14 inefficient. They're unprofitable, and so over the years,
15 the Chinese Government has really tried to sort of coach
16 them up and make them more attractive for sources of
17 international investment, make them more profitable.

18 SASAC is in charge of running the largest of all of
19 these State-Owned Enterprises and is the mechanism by which
20 the Government really tries to regulate them, and, frankly,
21 just make them better companies.

22 **Q** I'm going to turn your attention to the next row. But
23 before I do, have you researched the Chinese aviation
24 industry?

25 **A** I have. A number of years ago, along with a colleague

1 of mine, Sam Sax, I published a public report for a
2 Congressional commission on the Chinese aviation industry.

3 **Q** And as part of your experience, did you become
4 familiar with a State-Owned Enterprise known as the Aviation
5 Industry Corporation of China or AVIC?

6 **A** Yes.

7 **Q** Will you please explain to the Jury what AVIC is?

8 **A** So within the Chinese Defense Industrial Companies,
9 AVIC is responsible for production of military fighter
10 aircraft, bombers, drones, as well as helicopters.
11 Basically anything that -- anything that flies -- anything
12 that's air breathing, and is roughly analogous, I would say
13 to -- think companies like Lockheed-Martin or Northrop
14 Grumman that build advanced fighter aircraft and bombers in
15 the United States.

16 **Q** Directing your attention now to the box in, to the
17 left of AVIC. Did you become familiar with the Commercial
18 Aircraft Corporation of China or COMAC?

19 **A** Yes. COMAC was actually a primary focus of the report
20 that we wrote because COMAC is the latest in a series of
21 Chinese companies that have been setup by the Government to,
22 again, try to achieve that goal of finally being able to
23 build a commercial airliner, and COMAC is the latest in that
24 string of companies that have tried to achieve that, and
25 their primary focus is a regional airliner known as the

1 C-919.

2 **Q** Directing your attention to the box to the left, the
3 Aero Engine Corporation of China, or the AECC, did you
4 become familiar with this State-Owned Enterprise?

5 **A** Yes, this is the primary State-Owned Enterprise for
6 building advanced aircraft engines.

7 **Q** And how does -- excuse me. How do these State-Owned
8 Enterprises fit into the PRC's central planning and
9 Five-Year Plans?

10 **A** So at the Ministry level, when you're developing one
11 of these Five-Year Plans -- these are bureaucrats. That's
12 not to disparage them, but they're bureaucrats. They don't
13 necessarily have the technical expertise within each of
14 these industrial areas to know what the priorities should
15 be, what the gaps and bottlenecks are that need to be
16 overcome, where the money would be best spent.

17 So during the planning process, they reach down into
18 the lower levels of the system where they can find that
19 expertise, and then that moves back up, and it is
20 incorporated in the planning.

21 So, for instance, if the Ministry of Science and
22 Technology and the Ministry of Industry and Information
23 Technology wanted to understand the current dilemmas related
24 to advanced aircraft engine development in China, they would
25 consult with Aero Engine Corporation of China and various

1 research institutes subordinate to it in order to get that
2 technical expertise for planning.

3 **Q** How do AVIC, COMAC, and AECC fit into Made in China
4 2025?

5 **A** Well, there's a big focus in Made in China 2025 of
6 making sure that COMAC is a success in building a regional
7 airliner like the C-919, and there's a major focus in the
8 Made in China 2025 reports related to overcoming historic
9 bottlenecks related to building advanced aircraft engines,
10 which has tended to be one of the biggest impediments to
11 successful development of a competitor to Boeing and Airbus.

12 **Q** Now, to fulfill these Five-Year Plans, including Made
13 in China 2025, does each Ministry work on its own to achieve
14 the goals set out by the plan or do they collaborate across
15 Ministries?

16 **A** They have to collaborate, and within the Five-Year
17 Planning document and within Made in China 2025, they
18 actually identify which Ministries or which commissions are
19 the lead in achieving an objective and which Ministries and
20 commissions are required to support them, and that's all
21 laid out in black and white in the documents.

22 **Q** Next, I'll direct your attention to the top left of
23 the screen. Are you familiar with the term Ministry of
24 State Security?

25 **A** I am.

1 **Q** Is that sometimes referred to as the MSS?

2 **A** Yes.

3 **Q** What is the MSS?

4 **A** So the MSS is China's premiere intelligence
5 organization, and it is responsible for external
6 intelligence operations, operations occurring in foreign
7 countries, as well as an important role in domestic
8 counterintelligence.

9 So in that way it is roughly analogous on the one hand
10 to the Central Intelligence Agency in the United States, but
11 also the counterintelligence part of the F.B.I.

12 **Q** So internally, within the MSS, how is the bureaucracy
13 of the MSS structured?

14 **A** So the headquarters level at MSS, they have a series
15 of numbered Bureaus, and these numbered Bureaus correspond
16 to either regional focus.

17 So there are Bureaus that focus on Europe and the
18 United States and Russia and other sort of international
19 targets by region, and there are a number of Bureaus that
20 are focused on functional issues like surveillance or
21 technical collection and things along those lines.

22 **Q** Are you familiar with the Sixth Bureau?

23 **A** Yes.

24 **Q** What is the Sixth Bureau?

25 **A** So under the current re-organization, the Sixth Bureau

1 is responsible for science and technology intelligence.

2 **Q** In addition to this bureaucratic structure, does the
3 Ministry of State Security have a regional structure across
4 China?

5 **A** It does.

6 **Q** And please explain that to the Jury?

7 **A** So, again, I said that China has provinces, which are
8 roughly the same as our states here in the United States;
9 and each of those provinces has a State Security Department,
10 which is subordinate to the MSS headquarters in Beijing.

11 Also most of the major metropolitan areas that have
12 province level status because they're so huge, they also
13 have State Security Departments associated with them.

14 **Q** Are you familiar with the Jiangsu State Security
15 Department?

16 **A** So Jiangsu is a province of China, so naturally it has
17 its own State Security Department, and that's responsible
18 for counterintelligence issues within the Province of
19 Jiangsu as well as running operations potentially that could
20 exploit opportunities like foreign companies that are based
21 in Jiangsu Province, and that even includes then extending
22 international operations if, in fact, there is a nexus with
23 Jiangsu somehow in the operation.

24 **Q** Is the Jiangsu State Security Department sometimes
25 referred to as the JSSD?

1 **A** Yes.

2 **Q** So how is the JSSD structured internally and
3 bureaucratically?

4 **A** So it's roughly a mirror to the headquarters in
5 Beijing, so it also has a series of numbered Bureaus and
6 that creates kind of a matrix management system, so if
7 you're in the Sixth Bureau at JSSD, so the S&T intelligence,
8 you're, you're subordinate to your bosses there at the
9 Jiangsu State Security Department level, but you also have a
10 direct relationship with the Sixth Bureau at headquarters,
11 so it's a bit of a cross matrix.

12 **Q** So what is the responsibility of the Sixth Bureau of
13 the JSSD?

14 **A** On one level it's -- if there are opportunities to do
15 science and technology intelligence collection in the
16 Province of Jiangsu itself -- for instance, if there's a
17 foreign multinational company headquarter and based in
18 Jiangsu -- that provides an opportunity; and you also have
19 opportunities then to take advantage of relationships that
20 organizations in Jiangsu have with organizations abroad and
21 then use those as a cover for intelligence operations.

22 **Q** Earlier you testified that you wrote a book on Chinese
23 Industrial Espionage and that also used the term technology
24 transfer.

25 **A** Uh-huh.

1 **Q** When you use the phrase industrial espionage and
2 technology transfer, please explain to the Jury what you
3 mean by that?

4 **A** Well, I want to be clear. There's legal technology
5 transfer. I mean, lots of U.S. companies, for instance,
6 when they do business in China will set up joint ventures
7 with a Chinese partner.

8 It's often, you know, encouraged (Indicating), by the
9 Ministry, the regulator, that you then transfer technology
10 to the Chinese partner as part of the deal, which is, which
11 is completely aboveboard.

12 But illegal or illicit tech transfer obviously is when
13 trade secrets or other corporate proprietary information is
14 stolen from the company or is misused or transferred by
15 someone associated with the company.

16 **Q** Based on your research in publications, what, if any,
17 role does the Chinese Government have in this illicit
18 technology transfer that you described?

19 **A** Well, the Chinese Government has a very direct and
20 active role in industrial espionage abroad both in terms of
21 activities by humans but also cyber espionage through
22 hackers; and the reason was very clear. There are a number
23 of Chinese documents that very clearly say, in cases where
24 the technology can be obtained from within China, China
25 obtain it within China; but in cases where it can't be, we

1 have to obtain it through other means, and those other means
2 are taken to mean industrial or cyber espionage.

3 **Q** Why does the Chinese Government care about targeting
4 technology for this type of transfer?

5 **A** Well, as you can probably get the impression from my
6 earlier comments, the Chinese Government is sitting on top
7 of a -- sort of a hybrid capitalistic economy where there's
8 still a tremendous state role in central planning and
9 directing the economic.

10 As such, the Chinese Government doesn't believe that
11 its companies are just supposed to go figure these problems
12 out for themselves, but instead takes upon it as one of its
13 roles to develop systems that allow those companies to
14 overcome these problems; and the ultimate goal, of course,
15 is for China to increase -- as a country, to increase its
16 economic and its military power commensurate with the view
17 of the leadership about China's rightful place in the
18 world.

19 **Q** Who within China directs this technology transfer?

20 **A** Well, there are thousands of different elements within
21 the Chinese system that are working on pieces of this. That
22 was the main thrust of our 2013 book, Chinese Industrial
23 Espionage, and so there is not one single figure sort of in
24 the center of the system, but instead it is a very diffused
25 set of requirements. It just -- it really varies from

1 technology to technology and from goal to goal.

2 **Q** Earlier you mentioned both the words espionage and
3 cyber espionage. Before I get to that, I would like to ask
4 you about a phrase called non-traditional collectors. Are
5 you familiar with that phrase?

6 **A** I am.

7 **Q** Have you published books and articles about this
8 phrase?

9 **A** Our 2013 -- the 2013 book and the 2018 book that I
10 published extensively discussed the term non-traditional
11 collector.

12 **Q** Will you please provide the Jury with an overview of
13 what is a non-traditional collector?

14 **A** Well, I think it might be helpful first to talk about
15 what a traditional collector is, and this is your standard
16 view of espionage where you have an intelligence officer
17 from a foreign intelligence service who seeks to recruit
18 assets and then runs those assets and communicates with
19 them, and either wittingly or unwittingly that asset
20 provides information or technology or things to his handler
21 (Indicating), if you will.

22 Non-traditional collection is much more common in
23 Chinese industrial espionage, and the difference is you
24 often don't have that nexus of a formal foreign intelligence
25 service officer managing agents.

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1 Instead what you have are scientists and researchers
2 from either -- let's just take the case of the United
3 States -- from U.S. institutions or scientists and
4 researchers from Chinese institutions who then informally
5 work to identify potential sources of technology, set up
6 companies to try and buy it or acquire it, and so because of
7 that lack of a direct nexus with a, you know, foreign
8 intelligence service like the MSS, that's why they call it
9 non-traditional.

10 **Q** Let's pivot back to the traditional method that you
11 were referring to. Within China -- within the Chinese
12 Government, who, if anyone, conducts traditional espionage
13 targeting cyber -- excuse me, targeting science and
14 technology?

15 **A** The primary, the primary organization is the Ministry
16 of State Security, and to a lesser extent there are military
17 intelligence elements that do this; but the MSS takes
18 requirements from all of the planning processes that I've
19 been describing and converts them into intelligence
20 targeting priorities and then tries to identify people or
21 organizations either within China or abroad who have direct
22 or indirect access to what they want, and then they build
23 intelligence collection operations around the goal of then
24 exploiting those accesses to get -- to get the technology or
25 the scientific data.

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1 Q And in earlier explanation you were talking about
2 running sources and people being witting or not witting.
3 Are you familiar with the term non-official cover?

4 A Yes.

5 Q Will you please explain to the Jury what that means?

6 A So now we're talking about intelligence officers; but
7 there are two basic categories of intelligence officers,
8 both within our own C.I.A. as well as foreign services.

9 One is a declared officer. Often these individuals
10 have diplomatic cover. They work at the embassy as the
11 cultural attache or some other anodyne title, but they are
12 in a sense known to the host government as potential
13 intelligence officers.

14 Non-official cover are really the sort of spies of
15 fiction in a sense that they come in under, under commercial
16 cover or journalist cover or, you know, any other type of
17 organization that tries to reduce the suspicion about them.

18 They do not have any diplomatic protections. They do
19 not have diplomatic immunity. Those are called non-official
20 cover officers or NOCs.

21 Q I'm going to ask you about an organization not on this
22 chart. Are you familiar with an organization called the
23 Jiangsu Provincial Association for Science and Technology or
24 JAST?

25 A Yes. JAST was one of the many organizations that we

1 profiled in our 2013 book.

2 **Q** And please explain to the Jury what JAST purports to
3 be, and what it actually is?

4 **A** Well, on one basic level, and it is -- it is a
5 legitimate professional association for scientists and
6 engineers and researchers who are based in the Province of
7 Jiangsu to be a member of a professional association of
8 their peers.

9 But at the same time -- as we documented in our
10 book -- these organizations also have an operational role in
11 the sense of spotting and assessing potential sources of
12 science or technology, again, either in the Province of
13 Jiangsu or in terms of attracting people from abroad to come
14 to China, live in China, do research in China through
15 various talent programs or other sources of funding that
16 they might be able to offer in order to entice people to
17 bring those -- that capability and that knowledge to the
18 Province of Jiangsu.

19 **Q** Earlier you mentioned cyber espionage. What do you
20 mean by cyber espionage?

21 **A** By cyber espionage I mean using computer hackers to
22 break into networks and people's accounts to be able to
23 steal digital data, often at a remote distance, and in many
24 ways cyber espionage has become one of the preferred methods
25 for the Chinese Government because you don't have to build

1 the infrastructure of intelligence officers and language
2 training and everything that goes along with that, which
3 has the potential risk of your intelligence officer
4 getting arrested or captured in a foreign country and put on
5 trial.

6 Whereas cyber espionage, as many of you know, there's
7 a large level of plausible deniability. Sometimes it's very
8 difficult to do attribution of who is actually hacking your
9 network, and so you can steal large volumes of information
10 very quickly and then plausibly say that wasn't us.

11 **Q** When the MSS conducts these traditional espionage
12 operations or cyber espionage operations, do they limit
13 themselves to only publicly available information or do they
14 target proprietary information including trade secrets?

15 **A** They definitely target proprietary information
16 including trade secrets up to and including stealing
17 actually classified information.

18 **Q** How does the MSS know what technology to target?

19 **A** Well, intelligence services sometimes have a level of
20 technical expertise, but in general, they are -- they rely
21 on the technical expertise offered by other elements of the
22 Chinese system in order to refine the targeting
23 requirements.

24 So as an example, if there was a targeting requirement
25 to obtain advanced engine technology, they would consult

1 with and receive technical inputs from organizations in
2 China that, that are filled with engineers and experts on
3 aircraft engines.

4 Sometimes -- because sometimes in the intelligence
5 collection process, you don't know exactly what you have.
6 You think you have -- you have a big pile of documents,
7 maybe people have given you a big pile of blueprints or
8 schematics, but often the intelligence officer doesn't have
9 the expertise to be able to make heads or tails of it, and
10 so that has to be processed and evaluated by technical
11 experts who can then say, this is what we wanted. This
12 isn't what we wanted. We want something that looks similar
13 to that, and then you can iterate the intelligence
14 collection process with those new more precise targeting
15 guidance to be able to try to actually get what you want.

16 **Q** Once the information is collected by the MSS, where
17 does the information go? What do they do with it?

18 **A** Well, the information by itself is of no use to the
19 MSS, and so it then at the national level, there's a variety
20 of pathways by which it could be processed and exploited,
21 and we document a number of those very large groups in
22 Beijing that have large numbers of technically trained
23 English translators who can then go through all the material
24 to make it more intelligible to people who don't read
25 English; and then it works its way back down the system,

1 largely to State entities, State-Owned Enterprises, State
2 Research Institutes that then can exploit that information
3 in order to overcome whatever bottleneck or gap caused that
4 to become a requirement in the first place.

5 **Q** And what is the net effect of this industrial
6 espionage on the State-Owned Enterprises?

7 **A** Well, the net effect is twofold. One, it potentially
8 allows China and its State-Owned Enterprises to achieve the
9 objective that they have in their planning apparatus,
10 frankly, without all of the hard work and the billions of
11 dollars that went into the R&D from the people who invented
12 it themselves.

13 And so it saves the Chinese system time. It saves the
14 Chinese system money, and they take advantage of all of the
15 time and money that, that the people they stole the
16 information from invested in it.

17 On the other side, of course, is that if that then
18 leads to the development of a Chinese State-Owned Enterprise
19 that then becomes a competitor to the company that
20 originally had the science and technology information, then
21 it can potentially have a negative economic impact on the
22 U.S. company that now has a very potent competitor that is
23 building products using their stolen technology.

24 MR. MCKENZIE: Can I have a moment, Your Honor?

25 THE COURT: Yes.

1 (Mr. McKenzie confers with co-counsel.)

2 **BY MR. McKENZIE:**

3 **Q** I just have one quick clarification for you. Is the
4 Nanjing University of Aeronautics and Aeronautics in Jiangsu
5 Province?

6 **A** It is. Nanjing is the capitol of Jiangsu Province.

7 **Q** And similarly we talked about JAST earlier, is that
8 also in Jiangsu Province?

9 **A** Yes.

10 MR. McKENZIE: Okay. I have no further questions,
11 Your Honor.

12 THE COURT: Very well. Ladies and gentlemen of the
13 Jury. We started at two. We're going to try and stop at
14 4:30. Your break should be in the middle of that.

15 I had that calculated at 3:07, and the lawyer must
16 have seen my calculation because this is a good moment to
17 get your break.

18 Other days our afternoons will be longer so each
19 half will be just a little longer. I've been watching you.
20 You're paying close attention, and the Court and the
21 community appreciate it.

22 During the next 15 minute break, I want you to take
23 a break. No talking about the case with anybody, including
24 yourself. No independent research. Continue to keep an
25 open mind.

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1 We will ask you -- we will call for you from the
2 ninth floor in 15 minutes, and out of respect for you, we'll
3 rise as you leave.

4 COURTROOM DEPUTY: All rise for the Jury.

5 THE COURT: Lead them out, sir. Just walk right
6 out. Let's not invade the court reporter.

7 (The Jury exited the courtroom.)

8 THE COURT: The Jury is leaving the room, and the
9 door is closing. To the witness, sir, do not discuss your
10 testimony that you've given with anyone during the break.
11 Understood?

12 THE WITNESS: Understood.

13 THE COURT: We're in recess until that time.

14 COURTROOM DEPUTY: This Court is now in recess.

15 (Court was in recess at 3:05 p.m. and resumed at 3:21 p.m.)

16 THE COURT: You may be seated. We're back in the
17 open courtroom. The Jury's not yet here. We've had a
18 15 minute break. The full government team is here. Full
19 Defense team is here, including the Defendant and his
20 interpreter.

21 Are we ready to get the Jury from the Government's
22 perspective?

23 MR. MCKENZIE: Yes, Your Honor.

24 THE COURT: And from the Defense?

25 MS. CORS: Yes, Your Honor.

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1 THE COURT: Are you going to cross-examine this
2 witness?

3 MS. CORS: I am, Your Honor.

4 THE COURT: Do you really feel that's necessary?

5 MS. CORS: Just a few questions.

6 THE COURT: Very well. Let's call for the Jury.
7 Outside the presence of the Jury, once this witness is done,
8 I'm not overwhelmingly committed to move forward on your
9 next witness. Do you have an estimate of direct on your
10 next witness?

11 MS. GLATFELTER: Your Honor, about 20 to
12 30 minutes.

13 THE COURT: Very well.

14 MS. GLATFELTER: Maybe less.

15 THE COURT: Is there any problem if we don't get
16 him on today?

17 MS. GLATFELTER: I don't think so. He has a flight
18 back to Belgium tomorrow afternoon, so he's our first
19 witness, I think.

20 THE COURT: Very well. But he's here and ready to
21 go if we get to him?

22 MS. GLATFELTER: Yes, Your Honor.

23 THE COURT: Very well. Outside the presence of the
24 Jury, if we have time to put the next witness on for
25 purposes of direct only, is the Defense going to be

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1 uncomfortable holding cross until tomorrow as opposed to
2 doing them both tomorrow? I just don't want to set you
3 off.

4 MR. MIEDEL: Your Honor, Florian Miedel. I'm going
5 to be crossing. I'm not uncomfortable --

6 THE COURT: I heard you're going to do the cross.
7 What else did you saying?

8 MR. MIEDEL: It's fine if we do cross tomorrow.

9 THE COURT: Is that your preference rather than
10 splitting it?

11 MR. MIEDEL: We can do the direct today if you
12 prefer --

13 THE COURT: Okay.

14 MR. MIEDEL: -- and I can do cross tomorrow or we
15 can do both tomorrow.

16 THE COURT: You are a true professional.

17 COURTROOM DEPUTY: All rise for the Jury.

18 (The Jurors entered the courtroom.)

19 THE COURT: All Jurors returned. We may all be
20 seated. Members of the Jury, we've taken our mid-afternoon
21 break. Next stage is for the Defense to have an opportunity
22 to ask questions of the first witness of the Government, so
23 we will proceed to cross-examination in that regard.

24 You understand you're still under oath, sir?

25 THE WITNESS: Yes, Your Honor.

1 THE COURT: Very well. Cross may commence.

2 MS. CORS: Thank you, Your Honor.

3 THE COURT: And for the court reporter's benefit,
4 name of the lawyer?

5 MS. CORS: Good afternoon, Your Honor, ladies and
6 gentlemen of the Jury, Dr. Mulvenon, counsel, Jeanne Cors on
7 behalf of Mr. Xu.

8 **CROSS-EXAMINATION**

9 **BY MS. CORS:**

10 **Q** Good afternoon, Dr. Mulvenon. On your direct, you
11 spent some time talking about your background, and the
12 various trainings that you have had over the years; and as I
13 understand your testimony, you have been trained as a
14 linguist; is that correct?

15 **A** Yes, ma'am.

16 **Q** And you have degrees in political science, Asian
17 studies specifically; is that correct?

18 **A** Yes.

19 **Q** But you don't have any formal training in computer
20 science; is that correct?

21 **A** That is true.

22 **Q** Okay. And you have no formal training as an engineer;
23 is that correct?

24 **A** That is correct.

25 **Q** And you've never worked in the aviation industry; is

1 that correct?

2 **A** I have not.

3 **Q** So you're not in a position to talk about any specific
4 information relating to the aviation industry and whether it
5 is or is not a trade secret; is that correct?

6 **A** That is correct.

7 **Q** And you have never worked for the Federal Government,
8 I believe you testified; correct?

9 **A** I have not had the privilege.

10 **Q** And that includes no work at one of the Federal
11 Government's intelligence agencies; correct?

12 **A** Correct.

13 **Q** Either with the Department of Defense, the F.B.I., the
14 C.I.A.; is that correct?

15 **A** That is correct.

16 **Q** So am I correct in assuming that your information
17 regarding those entities and whatever work that they do is
18 primarily based on open source information?

19 **A** It's based primarily on 26 years of working with them
20 directly.

21 **Q** Is it based on publicly available information?

22 **A** Not entirely.

23 **Q** Classified information?

24 **A** None of the testimony I gave today in any way involved
25 classified information.

1 Q Okay. So the testimony you gave today involves
2 generally publicly available information?

3 A All of my testimony today involved publicly available
4 information.

5 Q Okay. And your current job as you've described it is
6 with a company called SOS International; correct?

7 A Yes.

8 Q And that company is primarily a contractor for the
9 Federal Government; is that correct?

10 A Primarily for the DOD and for the Department of
11 Homeland Security.

12 Q Okay. And do you know how much income SOS has derived
13 from the Federal Government since 2008?

14 A I do not. It is a privately owned family company, and
15 even within SOS International, those pieces of data are very
16 closely held by the family members.

17 Q Would it surprise you to know that there are reports
18 that the company's received \$1.2 billion from the Federal
19 Government since 2008 in the form of contracts?

20 A That wouldn't surprise me, no, but I can't verify that
21 number.

22 Q Okay. As an aside, you're being compensated to be
23 here today; is that correct?

24 A I am being paid for my time to give truthful
25 testimony, yes.

1 **Q** Understood. You mentioned that part of your job at
2 SOS and the team that you lead is to assist in collecting
3 and analyzing information on behalf of the Department of
4 Homeland Security, Department of Defense, and other entities
5 within the Federal Government; is that an accurate
6 description?

7 **A** Yes, ma'am.

8 **Q** And you describe that, I believe, as open source
9 research; correct?

10 **A** Right. The current term of art is publicly available
11 information, because open source requires government
12 authorities.

13 **Q** So publicly available information?

14 **A** Yes, ma'am.

15 **Q** Can you walk the Jury through -- and I'm not asking
16 you for specifics with respect to any project -- but if the
17 Department of Homeland Security comes to you and has a
18 project, can you walk me through the steps of how you come
19 to understand what the terms of the project are, and how you
20 would go about fulfilling, collecting, and analyzing the
21 information that's requested?

22 **A** Well, in most cases, they know roughly what they want,
23 but they don't know what kinds of data are available. So
24 I'll give you an example just as a theoretical example.

25 Let's say the U.S. Government is interested in China's

1 current research on artificial intelligence, and they want
2 to know who's doing it in China? Where are they doing it?
3 What kind of progress are they making?

4 There are enormous amounts of publicly available
5 Chinese material, technical journal articles, patents,
6 corporate records, government websites, and then my analyst
7 would then, utilizing a variety of tools, collect all of the
8 relevant information in primary source language, in Chinese,
9 to be able to answer those questions, exploit that material
10 in native language, and then produce an analytic report in
11 English for our sponsor.

12 **Q** So you're provided with guidelines, what is the
13 Government looking for, and then you take those guidelines
14 and you go out and you search for information that may
15 answer those questions; is that an accurate description?

16 **A** I would say that's about 50 percent of the time.
17 About 50 percent of the time we go to them and we say, we
18 have discovered a new source of publicly available
19 information that we think might answer questions that we
20 know are appropriate to your office because of your mission,
21 and then we introduce that new information to them, and that
22 tends to be more successful because we've already got the
23 answer in hand.

24 Whereas if the Government asked us to try to go find
25 something, I can't guarantee that we're going to be able to

1 find information.

2 So I would say most of the time we actually come to
3 them with at least the raw information and then design a
4 research program around it.

5 **Q** Would it be fair to say it's a pretty symbiotic
6 relationship? That they're sharing what they need. You're
7 sharing information you can find, and sometimes it goes back
8 and forth as you narrow down the target of -- what targeted
9 information the Government agency is interested in obtaining
10 and getting analyzed?

11 **A** Yes. I mean, it works best when it's iterative like
12 that. When, in fact, there is a sharing of requirements,
13 yes.

14 **Q** And is that -- that's standard in a lot of your
15 projects that it would be iterative? You would come back
16 with information. They would drill down on that
17 information. Come back maybe with some follow-ups.

18 **A** That's exactly how it works.

19 **Q** Okay. And with respect to this information, you
20 mentioned a lot of the information may be in, in Mandarin
21 Chinese; correct?

22 **A** Yes.

23 **Q** Is that information in the United States, information
24 in China, information that's mainly on the web, or would it
25 be a combination of all three of those?

1 **A** It's a combination. The one thing they have all in
2 common is that the information is publicly available.

3 **Q** Okay. When you mentioned -- discussed information,
4 is this always documents or written information or would the
5 information sometimes be obtained from individuals?

6 **A** It's almost entirely documentary information. There
7 are rules about talking to humans, and there are certain
8 authorities that contractors do not have in terms of talking
9 to human beings that, that are important bright line legal
10 distinctions, and so we focus almost exclusively on
11 obtaining documentary material.

12 **Q** Have you ever gone over to China to obtain
13 information?

14 **A** So during the first ten years of my career when I was
15 at the Rand Corporation, part of my job was to travel to
16 Beijing and meet with Chinese think tanks and other
17 specialists and talk to them about their view of Sino-U.S.
18 relations or their view of any number of issues, and then
19 sometimes write those reports up; but not surprisingly after
20 the 2013 publication of my book Chinese Industrial
21 Espionage, I was told by the Chinese Government that I was
22 persona non grata and would not be able to get a Visa to go
23 to the PRC.

24 **Q** I assume that wasn't a big surprise to you; correct?

25 **A** No, it was not.

1 **Q** So when you mentioned that you went over to China, you
2 would meet with other individuals, other experts in the
3 field; is that correct?

4 **A** Right. One distinction I'd like to make is that I
5 would always travel on an official Visa via an invitation
6 letter from a Chinese Government Institution. I believed it
7 was unethical for me to fly there on a tourist Visa
8 particularly given the somewhat shifting Chinese rules on
9 what constitutes espionage activities in the PRC, so I was
10 always there at the behest and invitation of an official
11 Chinese Government sponsor.

12 **Q** And on those Visas, I assume the employer that you
13 indicated was the Rand Corporation or whichever other
14 employer you were affiliated with at that time?

15 **A** Yes, ma'am.

16 **Q** Did you ever disclose that you may be doing work on
17 behalf of one of the Government agencies as part of that
18 trip?

19 **A** It was actually assumed by the Chinese side. The
20 Chinese actually have a very inflated and exaggerated view
21 of the Rand Corporation's influence on the Pentagon that is
22 wholly unwarranted in my view, but it was not a -- it was
23 not a mystery to anyone why we were there and often we told
24 them specifically what we were looking for because we were
25 being asked not to surreptitiously gather information in

1 China, but we were there specifically to talk to them and to
2 talk to their experts and write it up in published reports
3 that would be unclassified and put on Rand's website, so if
4 the Chinese didn't know what we were doing there when we
5 were there, they certainly knew soon after.

6 **Q** So that's your assumption that they knew, but it was
7 never disclosed in your Visa application, correct, that you
8 may be also working on a contract for the Department of
9 Homeland Security or an intelligence agency; is that
10 correct?

11 **A** It was -- the specific contractual details were not
12 mentioned in any of the Visa materials, no.

13 **Q** So as far as the documentation that you used was
14 concerned, it always solely referenced the private entity
15 with which you are affiliated; correct?

16 **A** Right.

17 **Q** Okay. During your direct testimony you talked about
18 these Five-Year Plans; correct?

19 **A** Yes.

20 **Q** And as I understand your description of the Five-Year
21 Plans, these are China's method of industrial planning; is
22 that correct?

23 **A** Yes.

24 **Q** So these are programs that are put in place to
25 establish priorities?

1 **A** Correct.

2 **Q** To help figure out where funding should be allocated
3 over this period of time to best achieve the priorities of,
4 of the Government; correct?

5 **A** Yes.

6 **Q** Now, I think, you know, in past statements you've
7 made, you've indicated industrial planning, Five-Year Plans,
8 there's nothing illegal about those; correct?

9 **A** Not at all.

10 **Q** Okay. And, in fact, you take issue with anyone
11 suggesting that something like the phrase Industrial
12 Planning is a dirty phrase; correct?

13 **A** Yes.

14 **Q** Could you share with the Jury from your perspective,
15 what are some of the benefits of engaging in industrial
16 planning?

17 **A** Well, there's a central level of government
18 coordination. You know, you can see that here in the United
19 States with President Biden's Infrastructure Plan that he's
20 trying to pass through Congress.

21 There's a sense that individual states in the United
22 States thinking of their own interests are not thinking of
23 larger industrial planning priorities, and that there are in
24 some cases is an advantage for the Federal Government of the
25 United States to engage in what looks like industrial

1 planning.

2 Like building the Eisenhower Interstate System. The
3 U.S. states individually would not have built the national
4 interstate system. It took the Federal Government to do
5 that.

6 **Q** And I believe you stated in the past NASA was part of
7 an industrial planning program, was it not?

8 **A** There's no other way to describe NASA other than a
9 Government's directed industrial planning organization.

10 **Q** And how about the Internet?

11 **A** The Internet was, in fact, not necessarily industrial
12 planning, but it was funded and built by the Pentagon under
13 what was then called ARPA. It's now called DARPA, the
14 Defense Advance Research Projects Agency, and the Internet
15 wouldn't exist without the U.S. Government's leadership on
16 that.

17 **Q** And every year the President of the United States puts
18 out a budget, right, a budget request? Would you view that
19 as a type of planning document?

20 **A** It mostly is.

21 **Q** And how about documents prepared by the U.S. Congress,
22 like, Defense Authorization Bills? Bills that will say we
23 want to spend money on a certain program, but, in fact, the
24 money is separately allocated through a different process,
25 would those types of authorization bills also be a type of

1 planning?

2 **A** Yes.

3 **Q** So not always funded but establishing the goals and
4 the policy preferences of that entity; correct?

5 **A** Yes.

6 **Q** And you testified that the Made in China 2025 Program
7 focused on ten priority sectors; correct?

8 **A** Yes.

9 **Q** That included aerospace and aviation?

10 **A** Correct.

11 **Q** In your opinion, is it smart for a government to try
12 to identify priorities before spending money?

13 **A** Yes.

14 **Q** Okay. So, again, you don't see anything nefarious
15 about these plans. You actually view them as something
16 positive; correct?

17 **A** Right. My objection is to how they're executed.

18 **Q** Okay. We'll get to that. In those plans -- let's
19 focus first on the current Five-Year Plan. Is there any
20 statement in that plan directing anyone in China to engage
21 in illegal conduct?

22 **A** As we've not seen the actual text of the 14th
23 Five-Year Plan, I couldn't tell you that.

24 **Q** So you have no basis for concluding that the
25 Five-Year Plan directs anyone to engage in anything illegal;

1 correct?

2 **A** No. I can only point to a correlation between illegal
3 tech transfer acquisition activities that just happened to
4 line up 100 percent with the requirements of the plan.

5 **Q** So you're making assumptions about the plan, but you
6 can't point to anything in the plan that would direct anyone
7 to engage in illegal conduct; correct?

8 **A** Not in the 14th Five-Year Plan, but I can point to
9 other Chinese plans that specifically mention using
10 espionage as an acquisition technique.

11 **Q** Do they specifically mention stealing trade secrets?

12 **A** Yes.

13 **Q** And what were those -- what are those?

14 **A** The 2006 to 2020 Medium to Long-Range Science and
15 Technology Plan, for instance, has an entire section
16 explaining how to obtain technology that is not resident in
17 China.

18 **Q** Okay.

19 **A** And it specifically talks about using, using
20 non-traditional collection to achieve that.

21 **Q** Okay. We're going to return to that, but you just
22 mentioned technology, non-traditional collection, but my
23 question was very, very targeted. Trade secrets. Does that
24 plan specifically direct anyone to steal trade secrets?

25 **A** No public Chinese document that I've seen says that,

1 no.

2 Q Okay. Thank you. I'd like to turn to your testimony
3 regarding the Ministry of State Security, and you spent a
4 long time talking about the Ministry itself, how -- where it
5 fits in the overall structure of the Chinese Government;
6 correct?

7 A Yes.

8 Q And then you talked about these different divisions
9 and departments and local offices; correct?

10 A Yes.

11 Q Let's start with the functions of the MSS. You
12 testified that the MSS is somewhat of a hybrid of, and
13 similar to the F.B.I. and the C.I.A. in the United States;
14 correct?

15 A Yes.

16 Q Okay. I believe you stated that it was a civilian
17 intelligence service; correct?

18 A Yes.

19 Q Okay. Also that it's responsible for external
20 intelligence operations; is that correct?

21 A Yes.

22 Q Okay. And that it also serves -- and I apologize. I
23 didn't recall if you've testified to that -- but isn't it
24 true that also serves domestic counterintelligence
25 functions?

1 **A** That is correct.

2 **Q** Can you describe to the Jury what domestic
3 counterintelligence functions would be?

4 **A** They are dedicated to finding foreign spies operating
5 in China.

6 **Q** And what are some of the methods from your
7 understanding that an entity like the MSS or any other
8 domestic Chinese organization would use to do that?

9 **A** Well, I've seen them firsthand. Extensive
10 surveillance, both human, vehicle, and physical and
11 technical surveillance, bugging hotel rooms, breaking into
12 hotel rooms and either stealing or copying laptops and
13 phones. Any number -- you know, monitoring communications
14 while in country.

15 **Q** Is it fair to say that you would view China as a
16 surveillance state?

17 **A** Very much so, and I've written extensively about it.

18 **Q** And with respect to that surveillance, you just
19 described individuals. How about companies?

20 **A** Yes.

21 **Q** Okay.

22 **A** Extensive industrial espionage.

23 **Q** No, I'm asking about surveillance and
24 counterintelligence. Surveillance is one method that these
25 entities use to monitor the companies and the individuals

1 who are on -- within their borders; is that correct?

2 **A** Very much so, yes.

3 **Q** Okay. I've seen in literature references to China
4 believing that cyberspace is not something that's
5 international. That cyberspace, when it is used within the
6 national borders of China, is something that China as a
7 country may regulate?

8 **A** They, they've explicitly written that in a document
9 called the International Code of Conduct that Beijing
10 submitted to the United Nations, yes.

11 **Q** So China believes that any use of the cyberspace
12 within its borders is an appropriate area for them to
13 regulate; correct?

14 **A** They believe that they not only are responsible for
15 protecting the networks within their borders but also
16 policing the content on those networks, yes.

17 **Q** Controlling information; correct?

18 **A** Yes, yes, ma'am.

19 **Q** Okay. Now, you mentioned that you had served as an
20 expert in the past; correct?

21 **A** Yes, ma'am.

22 **Q** And you've been deposed in connection with some of
23 those factions in the past; correct?

24 **A** Yes, ma'am.

25 **Q** And do you recall in the past being asked what the

1 various functions of the MSS were?

2 **A** Not specifically, no.

3 **Q** Do you recall indicating that in addition to the
4 functions we just mentioned -- and I'm going to quote
5 this -- that another function of the MSS is open source
6 collection and analysis. Do you recall stating that in a
7 deposition?

8 **A** I do.

9 **Q** Okay. That's not a function you testified to on
10 direct; correct?

11 **A** That is correct. MSS 11th Bureau, known as the China
12 Institute for Contemporary International Relations, which is
13 an organization that we met with frequently when I worked at
14 Rand, is, in fact, the open source intelligence organization
15 within the MSS.

16 **Q** Well, we'll circle back to that, but let me just be
17 clear: In your opinion one of the many functions of the MSS
18 as an entity is open source collection and analysis;
19 correct?

20 **A** Yes, that's correct.

21 **Q** All right. I'd like to step back and just make sure
22 the Jury understands a couple of terms, and I know you have
23 defined these terms in some of your writings.

24 You've made a distinction between the term information
25 and the term intelligence?

1 **A** Uh-huh.

2 **Q** Can you explain to the Jury what you mean by those two
3 terms and how they interrelate?

4 **A** So information or data is just simply any piece of,
5 piece of data or information that, that has meaning to it.

6 Whereas, intelligence is a very stylized term that
7 really means a piece of data or information that has value
8 to a government or a collection agency that seeks to collect
9 it.

10 There are many, many billions of pieces of information
11 or data that exist in this world that the C.I.A. and the MSS
12 don't care about.

13 They are very focused on a narrower set of information
14 or data that specifically aligns with the questions they're
15 trying to answer for their national security customers and
16 that would be intelligence.

17 **Q** Now, I believe you've defined intelligence, though,
18 even more broadly in some of your writings, haven't you?
19 Haven't you talked about this concept that information is
20 what you collect. Intelligence is the analysis you conduct
21 to take the value from the information to answer questions;
22 is that accurate?

23 **A** That's another way of thinking about it. You take
24 large volumes -- but, again, you can't take large volumes
25 of irrelevant information like soybeans and understand

1 intelligence about Chinese nuclear weapons, so the actual
2 information itself has to at least be within the scope of
3 what would eventually be the focus of the intelligence
4 analysis.

5 **Q** But intelligence doesn't necessarily mean on behalf of
6 government, does it?

7 **A** No, there's certainly corporate and commercial and
8 business intelligence, yes --

9 **Q** And, in fact --

10 **A** -- conducted by corporations.

11 **Q** And, in fact, corporations do that all the time,
12 right, collect publicly available information and have a
13 team of individuals who analyze that and draw out the useful
14 conclusions or --

15 **A** Right.

16 **Q** -- information from it; correct?

17 **A** Yes. The distinction I would make, though, is the
18 difference in authorities. You asked me about my
19 information collection activities in Beijing, and I was
20 careful to clarify that there are certain activities that I
21 am legally prohibited from engaging in that are the sole
22 purview of the U.S. Government.

23 Similarly there are plenty of collection activities
24 that Chinese entities could engage in; but when we're
25 talking about the intelligence operations that break foreign

1 laws, that tends to be the purview of organizations like the
2 MSS.

3 **Q** Let's talk about laws. The MSS operates within China;
4 correct?

5 **A** Yes.

6 **Q** Okay. When it's operating within China, it's
7 obligated to follow Chinese laws and customs; correct?

8 **A** In theory, yes.

9 **Q** In theory. And those are the laws that are relevant
10 to the MSS in China; correct?

11 **A** But the Chinese legal system is completely penetrated
12 by the Chinese Communist Party, so I would argue that you're
13 not getting the same kind of independent judicial review
14 that the judge represents.

15 **Q** Well, my question is: When the MSS operates in China,
16 they're required to follow Chinese law; right?

17 **A** They are formally required to do so, yes.

18 **Q** And those laws may be different than U.S. law;
19 correct?

20 **A** They are.

21 **Q** Okay. You testified regarding the structure of the
22 MSS, and these various divisions and Bureaus. What is the
23 basis for your opinions regarding how the MSS is structured
24 both nationally and at the provincial level?

25 **A** There's a surprising amount of publicly available

1 information about the MSS. It is difficult to find. It is
2 almost entirely in Chinese. There is no single source that
3 lays all of it out; but, frankly, we've had to piece it
4 together over years from small pieces of data.

5 **Q** Can you identify for the Jury any of this data that
6 you're relying on to opine regarding the structure of the
7 MSS?

8 **A** So, you know, good example would be Chinese technical
9 journal articles in which a representative of the MSS would
10 identify the organization that they're associated with in
11 the technical journal article.

12 There are trade shows. There are patents. There are
13 a number of situations in which, because it's in Chinese,
14 there is a sense that somehow this is not being noticed.

15 And -- but, like I said, there is no single source. I
16 mean, I -- you know, for my dissertation I found a book in
17 China that was publicly available that talked extensively
18 about how the MSS de-commercialized its business enterprises
19 in 1998 and named specific numbered Bureaus, so it's
20 possible to do. It's just extremely difficult.

21 **Q** So you're not able to identify anything specifically
22 for this Jury; correct?

23 **A** Well, it wouldn't be much use to the Jury since it's
24 all in Chinese.

25 **Q** Okay. Haven't you noted in the past that there's very

1 little known about the inner workings and decision making
2 structure of the MSS?

3 **A** That is certainly true. It is largely a black box.

4 **Q** Okay. And, in fact, you've referenced a number of
5 times your book, Chinese Industrial Espionage; correct?

6 **A** Uh-huh.

7 **Q** And I looked in the index of your book, and which,
8 again, is titled Industrial Espionage. Do you know how
9 many times Ministry of State Security is referenced in this
10 book?

11 **A** Not very many because the book is primarily about
12 non-traditional collection, which is not conducted by the
13 MSS.

14 **Q** Okay. Two references to the MSS. How many divisions
15 does the MSS have?

16 **A** I know of at least 18, and they are Bureaus not
17 divisions. That's an important term of difference in
18 Chinese.

19 **Q** Okay. What does the first Bureau do?

20 **A** The First Bureau, I believe -- you have me without my
21 notes -- is responsible for operations within China.

22 **Q** And what's your basis for opining on that?

23 **A** Because of defector testimony that was included in
24 Nick Eftimiades book Chinese Intelligence Operations.

25 **Q** Who was the author again?

1 **A** Nicholas Eftimiades.

2 **Q** Is that his book from 1994?

3 **A** It is.

4 **Q** So your reliance is on a book from 1994 to discuss the
5 current structure of MSS's First Bureau today?

6 **A** As a student of Chinese politics, I can tell you that
7 there are many, many parts of Chinese system that are --
8 have great continuity back going decades. There was a major
9 MSS re-organization in 2018 in which a number of Bureaus
10 were renumbered.

11 **Q** Okay. Let's focus on the Sixth Bureau specifically.
12 Do you know how many members are in the Sixth Bureau?

13 **A** I do not.

14 **Q** Do you know all of the functions performed by the
15 Sixth Bureau?

16 **A** I do not.

17 **Q** Do you know whether the Sixth Bureau may engage in
18 open source collection and analysis?

19 **A** It wouldn't surprise me, but I can't tell you for
20 certain.

21 **Q** You don't know either way --

22 **A** No.

23 **Q** -- correct?

24 **A** It's a secret intelligence agency. They don't tend to
25 publish a lot of that information.

1 **Q** Okay. Would that be the same as -- with respect to
2 the provincial office that some information may be known but
3 a lot of information may not be known --

4 **A** That's correct.

5 **Q** -- is that fair?

6 **A** That's fair.

7 **Q** Okay. Back on this topic of domestic
8 counterintelligence, this is when China, right, is seeking
9 to protect itself, its own national interest, from what it
10 considers to be foreign threats; correct?

11 **A** Yes.

12 **Q** And we discussed a little earlier how China has used
13 surveillance monitoring to ensure that its interests are
14 protected and to monitor what's going on within its
15 boarders; correct?

16 **A** Yes.

17 **Q** Could hacking be a technique used to do that as well
18 in your experience?

19 **A** Yes.

20 **Q** Okay. And, in fact, I think you've testified that
21 China has really made information dominance a central
22 priority -- a central military priority; correct?

23 **A** Yes.

24 **Q** And, in fact, the Government of China sees as a threat
25 allowing information to be exchanged to flow, but that it

1 hasn't -- does not have control over; correct?

2 **A** Very much so.

3 **Q** And I think you just testified that they certainly
4 regard cyber intrusions as a legitimate tool of preserving
5 national power, correct, would that be a fair
6 characterization?

7 **A** The planetary scale level of their activity would
8 suggest the answer is yes.

9 **Q** Okay. And this includes surveillance of people,
10 companies, basically any entity or any individual within the
11 country that they would view as important or necessary to
12 surveil; correct?

13 **A** Yes.

14 **Q** Okay. And another purpose of that is to maintain this
15 ideological purity; correct?

16 **A** Correct.

17 **Q** And this all sort of flows back, doesn't it, to this
18 one state concept?

19 **A** Very much so, yes.

20 **Q** Okay. Now, when you talked about sort of this one
21 state concept, China doesn't really have private and public
22 companies like you would think of in the United States;
23 correct?

24 **A** There are companies in China that I would regard as
25 private. Hauwai, for instance, because there is no

1 identified state ownership.

2 My point earlier in my testimony was to say that under
3 the current leadership, they appear to have shifted back to
4 a much greater emphasis on State ownership and State
5 capitalism at the expense of private enterprise.

6 **Q** Okay. So is it fair to characterize a broad sloth of
7 the economy of the businesses operating in China as having
8 some affiliation with the Government or some owner -- or the
9 Government having some ownership interest or control of
10 them?

11 **A** No. I think actually a larger percentage of the
12 economy is actually private enterprise. I was -- again, I
13 was speaking to the emphasis under the current
14 administration; but I will point out that in the last three
15 or four years, the central government has insisted that even
16 private enterprises now set up their own Communist Party
17 committee cells within those companies, and so implying that
18 even private enterprises are being brought under broader
19 State control.

20 **Q** Have you ever heard of the term the military civilian
21 fusion?

22 **A** Yes.

23 **Q** What does that term mean to you?

24 **A** Military civilian fusion is an important strategy that
25 has been promulgated at the very highest levels of the

1 Chinese Government that operates basically in two
2 directions.

3 It's meant to say that if there is science or
4 industrial progress in the civilian economy, that there
5 should be a conduit by which those breakthroughs make their
6 way to military modernization; and if there are science and
7 technology breakthroughs in military modernization, there
8 should be a way to convert those into advances on the
9 civilian economic side, and thus the term fusion of the
10 military and the civilian economies.

11 **Q** So as I think about it, you could have military
12 economy here (Indicating), right, civilian military here
13 (Indicating), and they're siloed, and there's not a lot of
14 interaction between the two.

15 Is this fusion really describing increased interaction
16 between the two in a more symbiotic relationship?

17 **A** It's meant to breakdown those silos, yes.

18 **Q** To pursue, I assume, some of these policy goals that
19 the Government has set out; correct?

20 **A** Yes, ma'am.

21 **Q** And there's nothing illegal about this type of fusion,
22 is there?

23 **A** No.

24 **Q** Okay. In fact, it could be -- it could be a positive
25 in terms of allowing the Government to better set policy and

1 achieve those policies; correct?

2 **A** It could be positive for the Chinese Government, yes.

3 **Q** Okay. Now, you testified regarding an entity called
4 SASAC; correct?

5 **A** Yeah, SASAC, yeah.

6 **Q** And what is SASAC again?

7 **A** The State-Owned Asset Supervision Administration
8 Commission.

9 **Q** Okay. And as I understood it, this is a commission
10 that is established -- they're primarily policy planners
11 with supervisory control of assets that are held in
12 State-Owned Enterprises and their subsidiaries; correct?

13 **A** Correct.

14 **Q** Do you know how many State-Owned Enterprises are under
15 SASAC's control?

16 **A** Dozens.

17 **Q** Would it surprise you to know that at least as of 2009
18 there are over 100?

19 **A** Yeah, it wouldn't surprise me at all.

20 **Q** And that as of 2009, there are over 17,000
21 subsidiaries?

22 **A** Uh-huh, (Witness nods head affirmatively.)

23 **Q** Do you know to what extent SASAC is this large entity
24 controlling, what, billions in assets?

25 **A** Trillions probably.

1 Q Trillions?

2 A Yeah.

3 Q Do you know what role they would have in day-to-day
4 operations of any individual entity?

5 A I would be surprised if they had a significant
6 day-to-day role, but they're deeply involved in major
7 corporate decisions related to doing IPOs in foreign stock
8 markets, finding investment opportunities, and things along
9 those lines. It's a very high level policy organization.

10 Q Okay. So their job, as you understand it, isn't to
11 run any of the entities below it. It's really to serve sort
12 of in this supervisory function and this policy making
13 function --

14 A Yes.

15 Q -- is that correct?

16 A Yes.

17 Q Okay. Back to this discussion of, you know, cyber
18 intrusions and protecting national intelligence, you
19 mentioned you, you know, have had interactions with the
20 intelligence agencies in the United States.

21 The United States intelligence agencies are authorized
22 to engage in certain cyber intrusions to protect national
23 security, are they not?

24 A I assume so. I don't have any direct knowledge.

25 Q Have you heard of Presidential Directive 28, which

1 specifically allows for the collection of foreign, private,
2 commercial information or trade secrets to protect national
3 security? Are you familiar with that?

4 **A** I am.

5 **Q** And that would, in fact, authorize the U.S. Government
6 for national security purposes to commit what is referred to
7 as signals intelligence, right, cyber intelligence, cyber
8 activity to protect national security?

9 **A** There's one key difference, which is, that that is
10 commercial economic espionage to provide information to the
11 U.S. Government, not provide information to Exxon Mobil.

12 **Q** Okay.

13 **A** And that is an argument and a debate that I have had
14 with Chinese interlocutors for more than 15 years.

15 **Q** But we just discussed previously, correct, that cyber
16 intrusions could also be engaged in by Chinese intelligence,
17 including the Ministry of State Security for national
18 security purposes; correct?

19 **A** That is true, yes.

20 **Q** And that is something that's allowed under
21 Presidential Directive 28 specifically in the United States;
22 correct?

23 **A** Yes.

24 **Q** Okay. Now, as you work through the chart that you
25 talked about, you went -- talked about a number of these

1 different entities, and I'd like to talk a little bit about
2 a few of these entities.

3 First, NUAA. Can you explain, again, to the Jury what
4 NUAA is?

5 **A** Nanjing University of Aeronautics and Astronautics is
6 a very large defense industrial university, tens of
7 thousands of students and faculty that largely conduct
8 research on aviation and aerospace topics. In other words,
9 aircraft and space vehicles.

10 **Q** And it has undergraduates and provides undergraduate
11 degrees in aviation-related fields; correct?

12 **A** It does.

13 **Q** Okay. And it has graduate programs that provide
14 degrees, graduate degrees in these areas as well; correct?

15 **A** Yes.

16 **Q** And it has a large body of professors who teach the
17 courses within each of these areas of study; correct?

18 **A** Yes.

19 **Q** And NUAA also has many collaborations, relationships
20 with universities in the United States, are you aware of
21 that?

22 **A** I would find that hard to believe because NUAA is on
23 the Commerce Department entity list --

24 **Q** Well, let's --

25 **A** -- and, therefore, there would be restrictions about

1 sharing technology with them.

2 **Q** So it surprises you to know that they have
3 affiliations with Temple University, Stonybrook, Purdue
4 University, University of Texas, University of Virginia,
5 just over time?

6 **A** I, I would want to know the contents of those, and I
7 would want to know whether the U.S. authorities responsible
8 for enforcing our export control regimes know about it,
9 yes.

10 **Q** And, in fact, are you aware that NUAA has a broad
11 based alumni organization in the United States?

12 **A** In fact, that's discussed in my 2013 book.

13 **Q** And would you agree that it's highly likely that many
14 of those alumni are working in companies throughout the
15 United States?

16 **A** It's possible.

17 **Q** Okay. And you don't know to what extent any of these
18 entities you described in your chart that are above NUAA,
19 what role, if any, they have in the day-to-day operations of
20 NUAA; correct?

21 **A** I do have some understanding of their roles.

22 **Q** How is the leadership structure at NUAA specifically
23 structured?

24 **A** It is structured like most universities. You have a
25 thick administrative layer, followed by the academic college

1 and department systems, and then there is a parallel set of
2 national defense and state key labs subordinate to NUAA.
3 The key difference being that party Secretary of NUAA has
4 more power than the President of the NUAA.

5 **Q** Okay. Do you know who that individual is?

6 **A** I have no idea what his name is. No, I do not.

7 **Q** Okay. So as I understand it, what you're describing
8 is your general understanding of the university system, not
9 specifically what is taking place within NUAA itself;
10 correct?

11 **A** That is true, but I have direct experience having
12 actually attended a Chinese university for two years,
13 yes.

14 **Q** And when did you attend that university?

15 **A** 1991 and 1992.

16 **Q** Okay. Thank you. Now, as a university that offers
17 programs in aviation, that offers areas of study in
18 aviation, that has undergraduates and graduate students,
19 wouldn't you agree that as with universities all throughout
20 the United States, it would be very beneficial and very
21 common for NUAA to hold conferences and invite speakers from
22 overseas or elsewhere to attend?

23 **A** Yes.

24 **Q** Okay. And to have exchange programs where they bring
25 in an expert and have that expert present to maybe a smaller

1 group?

2 **A** Yes.

3 **Q** And in your experience, is it uncommon for
4 universities, particularly universities with particular
5 areas of study like aviation, to have relationships with
6 trade associations that may also operate in that area?

7 **A** Yes.

8 **Q** Okay. So nothing illegal about that in general?
9 Nothing improper about that in general; correct?

10 **A** No.

11 **Q** Okay. And, in fact, you, yourself, have presented at
12 conferences at universities; isn't that correct?

13 **A** Yes, but I don't work for an intelligence agency.

14 **Q** How many times -- well, you do work for intelligence
15 agencies; isn't that correct? You do contract for the
16 intelligence agencies?

17 **A** I do not.

18 **Q** You do not do work for any intelligence agency, the
19 Department of Homeland Security?

20 **A** The Department of Homeland Security is not an
21 intelligence agency.

22 **Q** Do they do intelligence-type work?

23 **A** Not under Title 50, no.

24 **Q** Okay. Department of Defense, they don't have any
25 types of functions like that?

1 **A** Department of Defense does, yes.

2 **Q** Okay. And you -- you testified that you, in fact,
3 have done work for the Department of Defense; correct?

4 **A** That is true.

5 **Q** Okay. I'd like to now talk a little bit about this
6 discussion -- your testimony regarding technology transfer.
7 That is a primary focus of a lot of your writings recently,
8 isn't it?

9 **A** Yes.

10 **Q** Okay. And I think you mentioned the first book that
11 you wrote, correct, Chinese Industrial Espionage and a more
12 recent book; correct?

13 **A** (Witness nods head affirmatively.)

14 **Q** Now, I'd like to ask you about technology transfer.
15 What do you mean by that?

16 **A** Well, as I said in my direct testimony, there is
17 both -- there's legitimate legal technology transfer that
18 are negotiated between companies, and then there is illicit
19 technology transfer, in which trade secrets and technology
20 are, in fact, inappropriately transferred.

21 **Q** All right. Let's separate that out. One, you're
22 talking about a body of enforcement relating to trade
23 secrets; correct?

24 **A** Uh-huh. Yes.

25 **Q** And that's, that's what this case is about; correct?

1 Efforts to steal trade secrets under U.S. law; correct?

2 **A** Yes, correct.

3 **Q** Okay. But then you continued on. What else did you
4 include in that answer? You said trade secrets and other
5 information; right?

6 **A** Right. As you know, trade secret is a term of art
7 that has a specific legal meaning that does not encompass
8 all of the things that are stolen in industrial espionage.

9 **Q** And, in fact, there may not be a regime to enforce the
10 stealing -- as you would say -- or the obtaining of
11 information that is not a trade secret; correct?

12 **A** I'm not a lawyer, ma'am, but a lot of that would
13 seemingly fall under 18 U.S.C. 1831 in contrast to 1832.

14 **Q** So when you talk about technology transfer, are you
15 only talking about technology transfer involving trade
16 secrets?

17 **A** When talking about illegal technology transfer, no. I
18 am talking about a much broader universe than simply just
19 trade secrets.

20 **Q** Okay. So would it be fair to say you have had
21 concerns and have written about a broader body of
22 information that you believe may implicate national security
23 concerns but exchanges of which may be unregulated today?

24 **A** I, I, I -- I agree with all of that except the word
25 unregulated. I believe that there are other parts of the

1 Export Control Reform Act, other U.S. laws that govern the
2 other areas that I'm concerned about that are beyond simply
3 the trade secrets.

4 **Q** Okay. So you recognize there are laws governing
5 exchanges and obtaining of trade secrets, and you're saying
6 there may be other laws that govern this broader area,
7 including export controls or something else?

8 **A** Yes, I do -- I do believe that there are other laws
9 that govern the other aspects of those tech transfers.

10 **Q** Okay. But sitting here today, you can't identify
11 those?

12 **A** I already identified 18 U.S.C. 1831 Economic
13 Espionage. I identified the Export Control Reform Act.
14 I've identified a wide variety of complementary laws to the
15 trade secret theft law.

16 **Q** Now, do you recall in September of 2020, presenting at
17 the Fairbank Center for Chinese Studies?

18 **A** I do.

19 **Q** And do you recall testifying regarding your concerns
20 about non-traditional collection, and your concerns about
21 information that may not constitute a trade secret?

22 **A** I have a vague recollection of it, yes.

23 **Q** Okay. And in that testimony, you referred to this
24 concept of non-traditional collection, right, and talked
25 about this could be researchers in labs or information

1 exchanges involving universities; but it's this broad body
2 of collection that might not necessarily involve a trade
3 secret; correct?

4 **A** Yes.

5 **Q** Okay. And do you recall opining that your opinion at
6 the time was that, in fact, that broad body of collection
7 fell well outside of the statutes governing trade secrets
8 and that this was an area that may be in need of additional
9 enforcement?

10 **A** I agree with that, yes.

11 **Q** Okay. I'd like to talk a little bit about technology
12 transfer in China. On your direct testimony you mentioned
13 that there are legal ways, correct, that China is obtaining
14 information regarding foreign technology; correct?

15 **A** Yes. Foreign companies willingly enter into
16 agreements to transfer technology, yes.

17 **Q** Well, let's step back for a minute and talk about
18 China. China has been playing catch up in some of these
19 sectors, including aviation; is that fair?

20 **A** It is particularly true in aviation, yes.

21 **Q** And part of what China's doing -- has been doing for
22 many, many years is building a comprehensive system of
23 identifying relevant open source publicly available
24 information, collecting it, analyzing it, and trying to get
25 a leg up on what's already known, what's already done before

1 it takes the next step; correct?

2 **A** Yes.

3 **Q** Again, that's something U.S. businesses -- the U.S.
4 Government do all the time, isn't it?

5 **A** Just not at the scale and centrally delected
6 (verbatim) level that the Chinese Government does it, yes,
7 but it is accurate to say other people do it.

8 **Q** And, in fact, it's an attribute to the Chinese
9 Government, isn't it, that it's been able to develop such a
10 comprehensive system for collecting and analyzing publicly
11 available information?

12 **A** They do a very good job of it, yes.

13 **Q** They don't want to re-invent the wheel, is that
14 another way of describing it?

15 **A** They want to skip stages of development and save the
16 billions of dollars they would have to spend doing the R&D
17 by themselves, yes.

18 **Q** And, in fact, that's what companies in the U.S. do,
19 don't they? They, they find all the available R&D that's
20 out there and build from that?

21 **A** U.S. companies legally study what is -- the research
22 that is going on in other countries so that they can learn
23 from it, yes.

24 **Q** Okay. And to the extent China 's doing that from
25 publicly available information, that's perfectly legal,

1 isn't it?

2 **A** As long as that's exactly what it is, yes.

3 **Q** Okay. Now, there's -- as I mentioned, there's many,
4 many ways China can obtain information about foreign
5 technology through legal means; is that correct?

6 **A** Yes.

7 **Q** One way is reverse engineering; is that correct?

8 **A** Yes.

9 **Q** Can you describe to the Jury what reverse engineering
10 is?

11 **A** So you could buy a Dyson vacuum cleaner, and you could
12 take it a part and measure all of the components of it, and
13 then build a tooling and dying system and then build an
14 identical replica of a Dyson vacuum cleaner, and that's
15 reverse engineering.

16 In other words, taking it a part, understanding how it
17 works, and then rebuilding it.

18 **Q** So that's one legal way China can learn about foreign
19 technology, right, reverse engineering? Take the product,
20 take it a part, see how it's made, and seek to replicate it;
21 correct?

22 **A** I would say that Dyson might disagree with you about
23 that given that that's their patented product.

24 **Q** If they don't interfere with patent and simply learn
25 sort of how to make a better version of that through reverse

1 engineering --

2 **A** Well, I --

3 **Q** -- that is a way --

4 **A** -- I know, for instance, that it violates the user
5 license agreement for you to take a part your iPhone, so
6 there are restrictions that prevent you from doing that.

7 **Q** But you don't know what restrictions would apply in
8 China; correct?

9 **A** I would think that Dyson would have a civil case if
10 someone reverse engineered their vacuum cleaner, and then
11 started producing one that looked just like it.

12 **Q** Okay. But you don't know what law in China would
13 apply pertaining to this; correct?

14 **A** No, I do not.

15 **Q** Okay. You mentioned patents. Patent mining is
16 another way that China can learn a lot of information about
17 foreign technology; correct?

18 **A** Yes. Particularly patent trolling where China is
19 what's called a first-past-the-post patent system, which
20 means that the first person to patent something to China is
21 presumed to have the original patent, and so you could
22 simply copy -- as they do -- foreign patents, and then
23 registered those patents in China and then force foreign
24 companies to have to buy back their own patent.

25 **Q** So let's talk about patents. Patent filings contain a

1 lot of technical information regarding a product; right?

2 **A** Right.

3 **Q** Patent filings in the United States --

4 **A** True.

5 **Q** -- contain a lot of technical information. So by
6 looking at that technical information, in any specific area,
7 a Chinese company can learn a lot about technology in the
8 United States; right?

9 **A** And that's the trade off of the patent system, and
10 that's why many companies don't actually patent their
11 technologies because they don't want their competitors to
12 find out how things are built.

13 **Q** But this -- a lot of this information is public;
14 correct?

15 **A** Absolutely.

16 **Q** And it's information that's public to someone from
17 China as much as someone in the United States; correct?

18 **A** Yes.

19 **Q** Okay. Another way -- and really this is in collecting
20 technology, but on your direct you talked about funding for
21 research and development; correct?

22 **A** Uh-huh.

23 **Q** And is it fair to say that China has dramatically
24 increased its funding for science and technology research
25 and development?

1 **A** Yes.

2 **Q** Okay. In fact, China in 2020 spent more on research
3 and development in science and technology areas than the
4 United States, were you aware of that?

5 **A** Yes.

6 **Q** Were you aware that the R&D spending for China in 2020
7 was \$378 billion to \$134 billion in the United States?

8 **A** That sounds right.

9 **Q** So when you talk about technology transfer, China may
10 be obtaining technology -- technological information
11 overseas, but they're spending a lot of money today and over
12 the last decade on their own research and development; isn't
13 that correct?

14 **A** That is correct.

15 **Q** Another way that China can obtain information about
16 foreign and technology is joint ventures, isn't it?

17 **A** Yes.

18 **Q** And, in fact, many, many multinational corporations
19 from the United States have entered into joint ventures in
20 China; isn't that correct?

21 **A** It is.

22 **Q** And, in fact, GE itself has joint ventures in China;
23 correct?

24 **A** I don't have direct knowledge of that.

25 **Q** Are you aware of the GE AVIC -- and this is the

1 company you talked about earlier, the aviation company. Are
2 you aware of a joint venture between GE and AVIC to
3 manufacture avionic systems?

4 **A** I am not.

5 **Q** Okay. How about a joint venture between AVIC and
6 Honeywell, another company in the United States that's been
7 discussed today?

8 **A** I'm not aware of that specific arrangement.

9 **Q** How about Boeing, are you familiar with a joint
10 venture between AVIC and Boeing?

11 **A** I know Boeing does co-production of airplane tails and
12 doors in Xi'an; but other than that, I'm not aware of
13 anything.

14 **Q** And these are joint ventures with AVIC, a company you
15 testified about earlier; correct?

16 **A** Yes.

17 **Q** Okay. So apparently these companies at least view
18 them as a, a legitimate and viable business partner and one
19 that is worth entering into a joint venture; correct?

20 **A** Sure.

21 **Q** Okay. Foreign R&D labs, that's another way that China
22 can gain information and access to foreign technology;
23 correct?

24 **A** Yes.

25 **Q** Can you describe to the Jury sort of foreign labs in

1 China, is that a growing area?

2 **A** So foreign labs in China --

3 **Q** Correct.

4 **A** -- is that what you said? Yes. So about a decade
5 ago, the Ministry of Science and Technology that I mentioned
6 in the chart as away of accelerating technology transfer
7 began to insist that companies doing business in China open
8 up R&D labs inside the country, which then would have
9 Chinese students and people working there as a way of
10 facilitating technology transfer, yes.

11 **Q** And, in fact, I think you've described it as China
12 leveraging its market, the need for these companies, the
13 desire for these companies to come into China to obtain that
14 access to that technology; right?

15 **A** Yes. The primary motivation for foreign companies
16 transferring their technology inside labs like that is
17 precisely to convince the Regulator Ministry to give them
18 access to the China market.

19 **Q** And I think you've got a segment in your book you talk
20 about trade for technology; correct?

21 **A** Uh-huh, yes.

22 **Q** And is that what you're talking about here?

23 **A** Yes.

24 **Q** So it's really a pay-to-play system?

25 **A** Yes.

1 Q And that's not illegal?

2 A It is not.

3 Q If China wants to enter into a contract with GE
4 Aviation and have GE Aviation turn over its proprietary
5 information to get a foot in the door, that's a legal
6 method of obtaining access to that technology; is that
7 correct?

8 A As long as that technology is not export controlled,
9 yes.

10 Q Okay. And there are a lot of reasons these
11 multinational corporations want to have access to China;
12 correct?

13 A Almost entirely financial, yes.

14 Q Okay. What are some of the reasons from your -- in
15 your experience that a multinational corporation would agree
16 to set up a lab in China?

17 A Greed.

18 Q Okay. How about tapping into the expertise of the,
19 the students, the experts in the field?

20 A Sure. Cheap labor.

21 Q Cheap labor. Maybe more educated labor; correct --

22 A Yes.

23 Q -- in a specific area? Isn't another reason for these
24 labs and the reason these multinational corporations want to
25 go into these labs that it helps them improve the

1 penetration of the Chinese market?

2 **A** The research I've seen suggested it primarily improves
3 what's called localization of the product, so it makes the
4 product more amenable to the specific features of the China
5 market.

6 **Q** So you may have a product in the U.S., take the
7 iPhone --

8 **A** Yeah.

9 **Q** -- that you know U.S. consumers want certain functions
10 on it; correct?

11 **A** Uh-huh.

12 **Q** But maybe the Chinese market, a very large Chinese
13 market may prefer different functions?

14 **A** Uh-huh.

15 **Q** Are you saying one of the benefits of these labs is
16 that helps a company understand these differences and tailor
17 their product more to that local market?

18 **A** The research suggests that that's the primary benefit
19 that has been obtained from these foreign labs over the
20 years.

21 **Q** So there are benefits to these companies in setting up
22 these labs?

23 **A** Yes.

24 **Q** They recognize they may have to give up some of their
25 rights in technology and proprietary information, but

1 they're making a business decision that that is worth the
2 cost of breaking into that market and getting the know-how
3 they need to sell in that market; correct?

4 **A** That is correct, yes.

5 **Q** Okay. And, in fact, since 2000, since -- there has
6 been an explosion in the number of foreign R&D labs situated
7 in China; isn't that correct?

8 **A** Yes.

9 **Q** Okay. I've seen numbers saying from two thousand
10 thirty labs to over twelve hundred and two ten. I'm sure
11 it's even larger now. Does that sound about right to you?

12 **A** That's in the ballpark, yeah.

13 **Q** And these companies can include Microsoft, IBM,
14 Motorola, Siemens, GE; is that correct?

15 **A** Yes.

16 **Q** And, in fact, I believe you may have referenced in one
17 of your writings that GE actually developed its ultra
18 compact medical imaging technology in China in Beijing at a
19 lab?

20 **A** Yes.

21 **Q** Now, you also talk about another popular arrangement
22 that some of these entities do, and that's to set up a lab
23 but to go to a university and set up a lab at the
24 university; correct?

25 **A** Yes.

1 **Q** What are the benefits, in your experience, of setting
2 up a research and development lab at a Chinese
3 university?

4 **A** Easy access to knowledgeable professors and students.

5 **Q** And it helps them build relationships and ties;
6 right?

7 **A** Yes.

8 **Q** To individuals that may help them then develop the
9 market that they want to have in that country to sell their
10 product; correct?

11 **A** Yes.

12 **Q** And it's also a way to educate potential employees;
13 correct?

14 **A** Yes.

15 **Q** And introduce new products to local markets; correct?

16 **A** Yes.

17 **Q** So, again, another legal way China is leveraging its
18 market to obtain science and technology information legally
19 from companies overseas; correct?

20 **A** Yes.

21 **Q** Okay. Another area of -- I think, you had referred to
22 this as non-traditional collection or talent programs. Can
23 you explain to the Jury what a talent program is?

24 **A** So the Chinese -- we've identified about 507 national
25 and provincial level talent programs, and what they are are

1 efforts by organizations at those levels to identify
2 scholars living abroad. In many cases it's members of the
3 Chinese diaspora -- so people who have left China to go
4 study abroad and then stayed abroad working -- and to give
5 them financial grants to conduct research; but there's
6 always a very specific requirement that says that they have
7 to return to China for periodic short periods of time,
8 interact with their Chinese colleagues and in some cases
9 share or turn over the rights to the technology or the, or
10 whatever they develop using that money.

11 And so this is a very popular thing for China to do;
12 and like I said, there are hundreds of these different
13 talent programs.

14 **Q** So China identifies experts, many who are Chinese
15 nationals or Chinese origin; correct?

16 **A** Correct.

17 **Q** Who may be in the United States, who have a high level
18 of expertise in some area --

19 **A** Uh-huh.

20 **Q** -- they may be a researcher, they may be a professor,
21 but often these are looking at people who are highly
22 qualified; is that correct?

23 **A** Yes.

24 **Q** And China is -- has developed programs to encourage
25 them to come back to China to use their expertise and apply

1 their expertise to help China develop technology science in
2 certain areas; correct?

3 **A** That is correct.

4 **Q** And, again, this is a perfectly legal relationship,
5 correct, or can be?

6 **A** Can be provided that they follow the rules. You're
7 aware that there are dozens of cases around the country of
8 people who are being charged with wire fraud and tax fraud
9 and Visa fraud for failing to report that income either to
10 their home university or to the U.S. Government agencies
11 that were also providing them with parallel grants.

12 **Q** I'm well aware of most of those cases, and, in fact, I
13 think you just explained that many of those cases, if not
14 the majority, have been brought under statutes different
15 from the statutes at issue in this case; correct?

16 **MR. MCKENZIE:** Objection, Your Honor. We're
17 getting pretty far afield from the scope of direct
18 examination.

19 **THE COURT:** Overruled. Ms. Cors, it's after 4:30.
20 How much more do you have?

21 **MS. CORS:** Your Honor, I can finish up probably in
22 15 minutes.

23 **THE COURT:** 15?

24 **MS. CORS:** 15. Or if you would like to break, I'm
25 fine finishing up tomorrow morning.

1 THE COURT: Once she finishes her 15 minutes, then
2 he gets to ask more questions, and then she gets to ask more
3 questions.

4 One of the things I try to do is keep my promises
5 to the Jurors. I told you you'd go at 4:30. If we stay
6 until five, would it be a problem? If it is, raise your
7 hand? And I'm not going to be offended.

8 (No Jurors raised their hand.)

9 THE COURT: You can stay here and get this done; is
10 that right?

11 (The Jurors nodded their heads affirmatively.)

12 THE COURT: Did you wish to be heard, sir?

13 MR. McKENZIE: Yes, I just want to point out that
14 the witness has --

15 THE COURT: I can't hear you.

16 MR. McKENZIE: I just wanted to point out that the
17 witness has a flight tonight, so if we can try to finish
18 today, I would appreciate it, Your Honor.

19 THE COURT: Well, you can be a part of that. Go
20 ahead, Ms. Cors.

21 MS. CORS: Thank you, Your Honor.

22 **BY MS. CORS:**

23 **Q** Another legal method of technology -- learning about
24 technology is expert exchanges; correct?

25 **A** Yes.

1 **Q** Okay. And this could be when a university, a trade
2 association, someone -- other entity invites experts from
3 overseas to come share general knowledge about an area of
4 study, aviation, for example; correct?

5 **A** Yes.

6 **Q** These are very common in the United States, are they
7 not?

8 **A** Yes.

9 **Q** Holding conferences where individuals from around the
10 world come to share information about the level of where the
11 technology is at any given moment in an industry is very
12 common; correct?

13 **A** Yes.

14 **Q** And you're aware that companies like GE Aviation even
15 invite people in to talk about best practices or, you know,
16 the research that's out there?

17 **A** Yes.

18 **Q** Okay. And, again, a perfectly legal way to obtain
19 information regarding foreign science and technology and
20 developments; correct?

21 **A** Yes. There are rules that need to be followed; but as
22 long as those rules are followed, than it is legal, yes.

23 **Q** Back on this open source system, China has an
24 extraordinary well-developed expansive system for collecting
25 open source information; correct?

1 **A** It's very impressive, yes.

2 **Q** And, in fact, that's the subject of an entire chapter
3 in your book; is that correct?

4 **A** Yes, I did not write that chapter; but, yes, you're
5 right.

6 **Q** Okay. And as we've discussed, the collection of
7 publicly available open source information is perfectly
8 legal in the United States, around the world, and very
9 common; correct?

10 **A** Yes.

11 **Q** And applying analysis -- taking that information,
12 analyzing it, is not nefarious either. That's something
13 companies and governments do all over the world, don't
14 they?

15 **A** Yes.

16 **Q** And to the extent this information is publicly
17 available as open source information, you don't see anything
18 illegal or improper about collecting it?

19 **A** I've built a career on it.

20 **Q** And the fact that a government agency in China may be
21 involved in identifying what information is needed or
22 helping to narrow down what information to collect, that
23 doesn't make that collection illegal, does it?

24 **A** Open source collection is not illegal, no.

25 **Q** Okay.

1 THE COURT: This is beginning to sound redundant.

2 MS. CORS: Okay. I'll move on, Your Honor. If
3 you'll give me just a minute, Your Honor.

4 (Ms. Cors reviews her notes.)

5 **BY MS. CORS:**

6 **Q** And when you talk about open source information, I
7 believe in one of your recent presentations and in your
8 recent book, you talk about open source collection can also
9 include verbal information; is that correct?

10 **A** Yes.

11 **Q** And what is verbal information? Can you explain that
12 to the Jury?

13 **A** It's information that isn't written down. It's just
14 information that is shared as I'm talking to you right now.

15 **Q** And I think you opined that it's an area of
16 intelligence not normally associated with open source and
17 usually something that clandestine intelligence services
18 would engage in, but you've actually -- or the authors of
19 your book prize it for timeliness and accuracy; is that
20 correct?

21 **A** Yes.

22 **Q** So you collect documents that are open source, but
23 then it can be efficient, give you more current information,
24 help provide context if you talk to individuals about that
25 information; correct?

1 **A** Correct. One of the concerns about the talent
2 programs is that that's precisely why it's being used to
3 fill-in the gaps that are missing in documentary evidence.

4 **Q** But filling in gaps is not necessarily illegal;
5 correct?

6 **A** Not if the information isn't protected, no.

7 **Q** Okay. And specifically if it's not a trade secret;
8 correct?

9 **A** Correct.

10 MS. CORS: One minute, Your Honor.

11 (Ms. Cors confers with co-counsel.)

12 MS. CORS: I have no further questions, Your Honor.

13 THE COURT: Very well.

14 MR. McKENZIE: Your Honor, the Government has no
15 further questions for this witness.

16 THE COURT: Very well. Sir, you may step down.
17 You're free to go.

18 THE WITNESS: Thank you, sir.

19 (The witness exited the witness stand.)

20 THE COURT: Ladies and gentlemen of the Jury,
21 you've had a big day. You've done a great job. Thank you
22 for hanging in there.

23 It's especially important when you go home today
24 that you remember, don't talk about it. When somebody you
25 love says, oh, what happened? Who testified? What kind of

1 case is it?

2 You answer one of those questions, and you're out
3 talking about the case outside the walls of this room. So
4 take the break.

5 No talking about the case with anybody, including
6 yourselves or anybody at home. No checking it out on the
7 news, if any. No Google, Twitter, Instagram, Snapchat, none
8 of that electronic checking. Put it behind you for the
9 evening.

10 Enjoy your break; and, remember -- I'll tell you
11 this every day -- continue to keep an open mind. We're just
12 getting started. But the thrust of my message is, good
13 effort.

14 Out of respect for you, we want to start tomorrow,
15 same deal, be in the courthouse by 9:15, so we can try and
16 get you at 9:30. I'll be working hard to accomplish that.

17 If you wish to pray for me tonight, you're welcomed
18 to. You're not required to.

19 Out of respect for you, we'll rise as you leave.

20 COURTROOM DEPUTY: All rise for the Jury.

21 (The Jury exited the courtroom.)

22 THE COURT: Jury has a left the room, and the door
23 is closed. Is there anything that requires my attention
24 before we recess for the day from the Government?

25 MR. MANGAN: No, Your Honor.

1 THE COURT: From the Defense?

2 MS. CORS: No, Your Honor.

3 THE COURT: Good effort. We're in recess until
4 tomorrow.

5 COURTROOM DEPUTY: This Court's now in recess.

6 (The trial was recessed at 4:43 p.m.)

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1 CERTIFICATE OF REPORTER

2
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4 Court Reporter, in and for the United States District Court
5 for the Southern District of Ohio, do hereby certify that
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OCTOBER 27, 2021

17 **JULIE HOHENSTEIN, RPR, CRR, RMR**
18 FEDERAL OFFICIAL COURT REPORTER
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